

The v_3 , v_4 , and v_6 Bands
of Formaldehyde:
A Spectral Catalog
From 900 cm^{-1} to 1580 cm^{-1}

Shachar Nadler

*NAS/NRC Research Associate at
NASA/Goddard Space Flight Center*

D.C. Reuter

NASA/Goddard Space Flight Center

S.J. Daunt

*Concordia University, Montreal/
University of Tennessee*

J.W.C. Johns

*Herzberg Institute of Astrophysics,
Ottawa, Canada*



National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland 20771

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INTRODUCTION

This catalog presents the results of a complete high resolution study of the three vibration-rotation bands v_3 , v_4 , and v_6 using both TDLs and FT-IR spectroscopy. The results are given in terms of a table of over 8000 predicted transition frequencies and strengths. A plot of the predicted and observed spectra is also shown. Over 3000 transitions were assigned and used in the simultaneous analysis of the three bands. The simultaneous fit permitted a rigorous study of Coriolis and other type interactions among the bands yielding improved molecular constants. Line intensities of 28 transitions measured by a TDL and 20 transitions from the FTS data were used, along with the eigenvectors from the frequency fitting, in a least squares analysis to evaluate the band strengths.

EXPERIMENTAL

High resolution FT-IR spectra of H_2CO from 890 to 1580 cm^{-1} have been recorded with a Bomem interferometer at the Herzberg Institute of Astrophysics in Ottawa. This instrument has an unapodized resolution of $\sim 0.0024\text{ cm}^{-1}$. The spectra reported were apodized using a Hamming window yielding an observed width of 0.004 cm^{-1} . The spectra contained nearly 4000 transitions arising from the v_3 , v_4 , and v_6 bands. A peak finder program running on the PDP-11 computer of the Bomem interferometer provided a measured wavenumber listing for these transitions. A trace of CO_2 gas introduced into the sample cell provided for absolute calibration. The spectra were recorded in four separate bands; 889 to 1095 cm^{-1} with a CO_2 pressure of 4 torr and 200 millitorr of H_2CO , 1079 to 1280 cm^{-1} with 4 torr of CO_2 and 200 millitorr of H_2CO , 1275 to 1450 cm^{-1} with 100 millitorr of H_2CO , and 1418 to 1580 cm^{-1} with 75 millitorr of H_2CO . All measurements were taken in a 6.75 meter cell at room temperature.

The observed transitions obtained from the FT-IR spectrum were assigned using ground-state-combination-differences. This method determines the upper state energy levels by a combination of observed infrared transition wavenumbers and the appropriate ground state energies. Line assignments were governed by the selection rules for an asymmetric top (formaldehyde is a near prolate symmetric top with

$\kappa = -0.961$). For any infrared-active band, the selection rules for the total angular momentum are $\Delta J = -1, 0$, or $+1$ for the P, Q, or R branches respectively, with the constraint that no transitions occur between states with $J=0$ in both upper and lower levels. The selection rules for K_a and K_c are:

| | | | |
|---------------|--|---|--|
| A-type bands: | $\Delta K_a = 0, +/-2, +/-4, \dots$ | ; | $\Delta K_c = +/-1, +/-3, +/-5, \dots$ |
| B-type bands: | $\Delta K_a = +/-1, +/-3, +/-5, \dots$ | ; | $\Delta K_c = +/-1, +/-3, +/-5, \dots$ |
| C-type bands: | $\Delta K_a = +/-1, +/-3, +/-5, \dots$ | ; | $\Delta K_c = 0, +/-2, +/-4, \dots$ |

In formaldehyde, v_3 , v_4 , and v_6 are A-, C- and B-type bands respectively.

The ground state energy levels for all transitions up to $J''=30$ and $K_a''=10$ were generated from the ground state rotational constants reported by Cornet and Winnewisser (1). Using these values in the GSVD computations, yielded predicted transition frequencies within 1 milli-wavenumber of the observed for transitions with $J < 15$ and $K_a < 5$. The errors in predicting higher J and K_a transitions were within 3 milli-wavenumbers.

THEORY

Frequency Analysis

The application of rotation-vibration theory to the analysis of the interacting v_4 , v_6 , and v_3 bands of formaldehyde has been discussed elsewhere (2,3,4,5) and, as such, will only be very briefly summarized here. The rotational Hamiltonian used in the current study is the Watson A reduced Hamiltonian with all terms up to sextic in centrifugal distortion included (6). The $|\Delta K|=1$ a-type coriolis interaction between v_4 and v_6 , as well as the b-type Coriolis interaction between v_4 and v_3 and the c-type Coriolis interactions between v_6 and v_3 are included as is a further higher order asymmetric effect $|\Delta K|=2$ interaction between v_4 and v_6 (3). All of these terms, excluding some of the sextic centrifugal distortion terms, were included in an earlier analysis of these bands (2). However, to adequately explain the data in the current study it was found necessary to include a higher order $|\Delta K|=3$ interaction term between v_6 and v_3 . The effect of this term, which is partly due to a combined Coriolis interaction and asymmetric effects has been discussed earlier (3) but its magnitude

had not been accurately determined. This term is most important for transitions ending in $K_a=6$ of v_6 and $K_a=3$ in v_3 and has little effect on other states. It was also found to be necessary to include more of the sextic centrifugal distortion terms in this analysis than in reference (2) because of the higher spectral resolution and greater range in J and K of the present data. A more complete description of the theory and the method of calculation of energies for the Hamiltonian described above, (including the form of the matrix elements), may be found in references (4,5).

Intensity Analysis

Given the transformation matrices which diagonalize the ground and upper state molecular Hamiltonians written in a rigid rotor-harmonic oscillator basis set, one can calculate the intensity of a given transition by pre-multiplying the transition dipole matrix, (written in the same basis set), by the ground state transformation and post multiplying it by the upper state transformation. For a given vibrational state the transition dipole matrix is a multiple of the derivative of the dipole moment with respect to the vibrational coordinate times a direction cosine term. When there are elements in the molecular Hamiltonian which connect different vibrational basis sets (e.g. Coriolis coupling terms) the intensity contains terms from more than one vibrational state and the relative signs of the dipole moment derivatives for the various vibrational motions become important. In the current work the magnitudes and relative signs of the derivatives for v_3 , v_4 , and v_6 were determined by a least squares fitting procedure using intensity data determined in a diode laser study (7). Again, for a more thorough discussion of the intensity fitting procedure the reader is referred to references (4,5).

RESULTS

The molecular parameters resulting from the fitting of the observed infrared and excited state microwave transition frequencies are given in Table 1. The parameters fit are the rotationless energies of each of the upper states as well as the rotational constants, the quartic centrifugal distortion constants, the diagonal sextic constants, except for H_J , and five inter-state interaction coefficients. This choice of parameter set is reasonable but somewhat arbitrary, and the least squares fit is not a well posed problem. However, this set of 41 constants was the fewest which could be used in

Table 1: Molecular Constants for the v_3 , v_4 and v_6 Bands of H_2CO .

| | <u>Ground State^a</u> | <u>$v_4=1$</u> | <u>$v_6=1$</u> | <u>$v_3=1$</u> | |
|---------------|---------------------------------|----------------------------|---------------------------|---------------------------|-------------------|
| v_0 | | 1167.25675(4) ^b | 1249.09438(4) | 1500.17452(5) | |
| A | 9.4055259 | 9.38109(121) | 9.39539(121) | 9.46712(1) | |
| B | 1.2954310 | 1.291412(3) | 1.298153(1) | 1.295821(4) | |
| C | 1.1341914 | 1.1356615(6) | 1.1296077(31) | 1.1295653(35) | |
| Δ_K | 6.479062 | 2.1096(47) | 10.9804(45) | 6.8893(36) | $\times 10^{-4}$ |
| Δ_{JK} | 4.304664 | 3.7045(70) | 5.2059(74) | 4.1347(50) | $\times 10^{-5}$ |
| Δ_J | 2.511582 | 2.4727(7) | 2.5605(8) | 2.7282(9) | $\times 10^{-6}$ |
| R_5 | -1.711235 | -1.2204(37) | -2.1158(45) | -2.2614(49) | $\times 10^{-5}$ |
| δ_J | 3.487999 | 2.9385(27) | 3.6526(37) | 4.6264(33) | $\times 10^{-7}$ |
| H_K | 1.500705 | 1.503(141) | 1.572(138) | 1.951(31) | $\times 10^{-7}$ |
| H_{KJ} | -0.374192 | -2.749(74) | 4.234(99) | -4.519(143) | $\times 10^{-8}$ |
| H_{JK} | 0.96797 | 0.188(85) | 2.828(59) | -0.687(68) | $\times 10^{-9}$ |
| H_J | 1.04856 | c | c | c | $\times 10^{-12}$ |
| h_J | 1.41427 | c | c | c | $\times 10^{-12}$ |
| h_{JK} | 5.22558 | c | c | c | $\times 10^{-10}$ |
| h_K | 4.5769 | c | c | c | $\times 10^{-8}$ |

Coriolis Constants

| | |
|------------------|-------------------------------|
| ξ_{64}^a | 10.44086(473) |
| ξ_{34}^b | 1.7505(2) |
| ξ_{36}^c | 0.68836(62) |
| η_{64}^{bc} | -1.9532(122) $\times 10^{-3}$ |
| z_{36} | -7.968(80) $\times 10^{-6}$ |

- a. From reference 1.
- b. The uncertainties in parenthesis are 1σ from the least-squares fit, right-adjusted to the last digit of the parameter.
- c. These parameters were fixed to the ground state values.
Weighted fitting error = 0.852
Normalized fitting error = $7.47 \times 10^{-4} \text{ cm}^{-1}$

which fitting results were not markedly improved by the addition of further fitting parameters. Also given in Table 1 are two measures of goodness of fit; the weighted fitting error defined as: $(\sum \omega_i \Delta_i^2 / (N - N_p))^{1/2}$ and the normalized fitting error defined as: $(\sum \omega_i \Delta_i^2)^{1/2}$. In these expressions ω_i is the inverse of the squared error in measurement i , Δ_i is the residual of the fit for transition i , N is the total number of lines fit, N_p is the number of parameters, and $\omega_i = \omega / \sum \omega_i$. The uncertainties chosen for the infrared transitions were 0.0005 cm^{-1} for upper states with $J < 15$ and $K < 5$ and 0.001 cm^{-1} for most of the rest of the lines, although some blended lines were assigned uncertainties of 0.002 cm^{-1} . The low J and K uncertainty is about 2-3 times the measurement error, as determined from the CO_2 calibration lines. The excess uncertainty reflects effects of terms not included in the fitting process which are expected to have more influence at higher J and K . The uncertainties for the microwave data were taken to be the experimental error (1). Note that the weighted fitting error should be about 1 if the weights are correct. The parameters obtained were not strongly dependent upon the weights chosen.

The results of the fitting procedure for the intensities are given in Table 2. Here the measured intensities for v_4 and v_6 were taken from a diode laser study (7) and the intensities for v_3 were taken from the FTIR data described above. To convert the v_3 FTS intensity data to the diode laser units about 20 observed and calculated relatively weak (transmittance $> 70\%$) v_6 lines were used as a transfer standard. That is, the average multiplicative factor required to make the observed v_6 intensities agree with the calculated FT-IR v_6 intensities was applied to observed v_3 lines in the same intensity range. The multiplicative factor is expected to be a weak function of line strength and, in fact, it seems to vary about 5% over the intensity range chosen. This slight variation, which may be due to other effects, was ignored. As may be seen from the table essentially all of the calculated intensities agree with the observed to better than 10 to 20 percent, although there are a few outliers. It should be noted that the results degraded significantly if mixing of vibrational states was ignored in the determination of the intensities or if different relative signs were used for the dipole moment derivatives. The uncertainties used in determining the weights used in the least squares fitting procedure were taken to be the experimental uncertainty given in reference (7) for the diode data (with an additional error of 0.001 added) while the FTS data was given less weight.

A complete listing of all H_2CO v_3 , v_4 , and v_6 lines whose calculated intensities are greater than 0.01% of the strongest line is given in Table 3. For those lines which were identified and used in the frequency fitting procedure the residual (obs. - cal.

Table 2: Results of Intensity Fitting.

| Band v | Upper State J K _a K _c | Lower state J K _a K _c | Obs. Int cm ⁻² atm ⁻¹ | Obs.-Cal. cm ⁻¹ | Frequency |
|-----------|--|--|--|-------------------------------|-----------|
| 6 | 17 4 14 | 18 5 13 | 0.00323 | -0.00066 | 1148.3347 |
| 6 | 17 4 13 | 18 5 14 | 0.00340 | -0.00049 | 1148.3602 |
| 4 | 11 2 9 | 10 3 7 | 0.02113 | -0.00118 | 1148.3451 |
| 4 | 3 0 3 | 4 1 3 | 0.04737 | 0.00651 | 1148.4704 |
| 4 | 16 1 15 | 16 2 15 | 0.01866 | 0.00187 | 1148.5084 |
| 4 | 1 0 1 | 1 1 1 | 0.02953 | -0.00004 | 1159.1358 |
| 4 | 2 0 2 | 2 1 2 | 0.04846 | -0.00009 | 1159.2718 |
| 4 | 28 2 27 | 28 1 27 | 0.00594 | 0.00067 | 1159.2931 |
| 4 | 15 2 13 | 14 3 11 | 0.01883 | -0.00319 | 1159.3918 |
| 6 | 6 6 1 | 7 7 0 | 0.00744 | 0.00194 | 1159.4110 |
| 4 | 9 1 9 | 8 2 7 | 0.00743 | -0.00051 | 1159.4397 |
| 4 | 3 0 3 | 3 1 3 | 0.06663 | 0.00019 | 1159.4717 |
| 4 | 18 2 17 | 18 1 17 | 0.03208 | 0.00402 | 1172.3860 |
| 4 | 6 1 6 | 6 0 6 | 0.02843 | 0.00026 | 1172.5256 |
| 6 | 12 2 1 | 13 3 10 | 0.01898 | -0.00043 | 1180.6443 |
| 6 | 4 4 1 | 5 5 0 | 0.01921 | 0.00163 | 1180.7330 |
| 4 | 24 0 24 | 23 1 22 | 0.00261 | -0.00143 | 1180.8077 |
| 4 | 11 2 10 | 11 1 10 | 0.03400 | -0.00142 | 1180.8323 |
| 6 | 13 2 11 | 14 3 12 | 0.01651 | -0.00247 | 1180.8831 |
| 6 | 10 4 7 | 10 5 6 | 0.01400 | 0.00274 | 1192.6082 |
| 6 | 3 3 1 | 4 4 0 | 0.01000 | 0.00116 | 1192.6272 |
| 6 | 9 4 6 | 9 5 5 | 0.01400 | 0.00321 | 1192.6657 |
| 6 | 18 1 17 | 19 2 18 | 0.00601 | -0.00068 | 1192.7378 |
| 6 | 7 4 4 | 7 5 3 | 0.01083 | 0.00237 | 1192.7652 |
| 6 | 10 1 10 | 11 2 9 | 0.00589 | -0.00023 | 1192.7954 |
| 6 | 6 4 3 | 6 5 2 | 0.00824 | 0.00180 | 1192.8068 |
| 6 | 5 4 2 | 5 5 1 | 0.00489 | 0.00119 | 1192.8428 |
| 6 | 19 7 13 | 18 6 12 | 0.00820 | 0.00058 | 1440.1333 |
| 6 | 20 7 14 | 19 6 13 | 0.00730 | 0.00094 | 1442.2636 |
| 6 | 17 8 10 | 16 7 9 | 0.02300 | 0.00104 | 1460.1858 |
| 6 | 18 8 11 | 17 7 10 | 0.01930 | 0.00048 | 1462.2888 |
| 6 | 20 8 13 | 19 7 12 | 0.01377 | 0.00047 | 1466.4432 |
| 6 | 22 8 15 | 21 7 14 | 0.00973 | 0.00079 | 1470.5292 |
| 3 | 24 1 24 | 25 1 25 | 0.04110 | 0.00757 | 1442.2324 |
| 3 | 22 2 20 | 23 2 21 | 0.01742 | 0.00435 | 1446.2075 |
| 3 | 22 3 20 | 23 3 21 | 0.04194 | 0.00924 | 1447.1261 |
| 3 | 19 0 19 | 20 0 20 | 0.03563 | 0.00355 | 1453.7086 |
| 3 | 20 6 14 | 21 6 15 | 0.00584 | 0.00015 | 1453.7134 |
| 3 | 17 4 13 | 18 4 14 | 0.02590 | 0.00405 | 1458.7240 |
| 3 | 17 4 14 | 18 4 15 | 0.02440 | 0.00255 | 1458.7334 |
| 3 | 1 0 1 | 2 0 2 | 0.03269 | 0.00058 | 1495.3252 |
| 3 | 1 0 1 | 0 0 0 | 0.01545 | -0.00093 | 1502.6116 |
| 3 | 9 6 4 | 9 6 3 | 0.01936 | 0.00067 | 1502.6545 |
| 3 | 11 6 6 | 11 6 5 | 0.01317 | 0.00062 | 1502.9181 |
| 3 | 5 2 4 | 4 2 3 | 0.04578 | -0.00504 | 1512.6594 |
| 3 | 5 2 3 | 4 2 2 | 0.04562 | -0.00516 | 1512.7188 |
| 3 | 6 5 1 | 5 5 0 | 0.02354 | -0.00271 | 1516.3326 |

Number of lines fit = 48

Rotational Partition Function = 2.8285908×10^3

frequency difference) is also given. Lines marked by an asterisk were included in the fit with zero weight and correspond to very blended lines, or lines expected to be perturbed by terms not included in the molecular Hamiltonian. Lines marked by R were excluded from the fit because their residuals were greater than 5 standard deviations. Strengths are given in terms of $\text{cm}^{-2}\text{atm}^{-1}$. The last part of Table 3 gives the residuals for 74 excited state pure rotation transitions which were included in the fitting .

Figure 1 is a plot of the observed and calculated spectrum from 900 cm^{-1} (11.1 μm) to 1580 cm^{-1} (6.33 μm). In this figure the top trace is the observed spectrum, the middle trace is the calculated spectrum normalized so that the strongest feature in each band has a transmittance of 5% and the bottom trace is the same as the middle trace except that full scale corresponds to 90% transmittance. This figure was obtained in the following manner. It was found that the observed spectral lines in each of the 4 regions described in the experimental section could be modelled quite well by a gaussian line shape although the optimal line width varied from about 0.0033 cm^{-1} to 0.0024 cm^{-1} . The entire spectrum was therefore calculated as a 0.0028 cm^{-1} gaussian and in each region 5 to 10 lines were used to find a multiplicative factor which minimized the difference between the observed and calculated spectra (which were both in absorbance). In each region the spectrum was scaled so as to make the exponential of the strongest calculated feature = 0.05. The scaling factor was applied to the entire observed and calculated spectra. This figure is for illustrative purposes only.

Finally, Table 4 gives the energies of all the states up to $J = 30$ in the ground and excited states v_3 , v_4 , and v_6 . The near coincidences of $v_4 K_a = 4$ and $v_6 K_a = 2$ states, $v_6 K_a = 6$ and $v_3 K_a = 3$ states, and $v_3 K_a = 7$ and $v_4 K_a = 10$ states are quite evident in this Table.

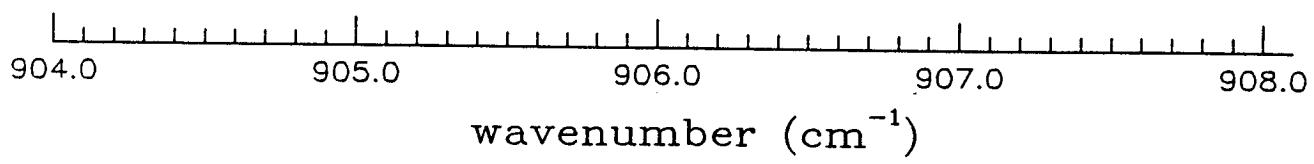
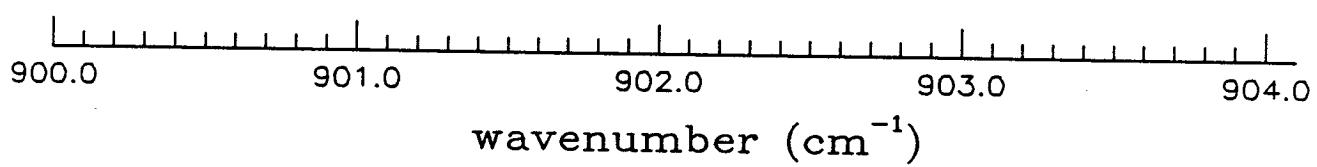
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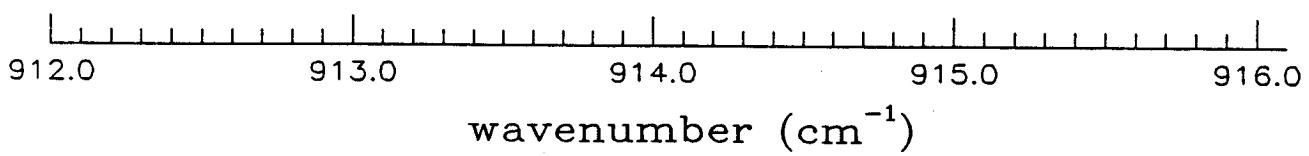
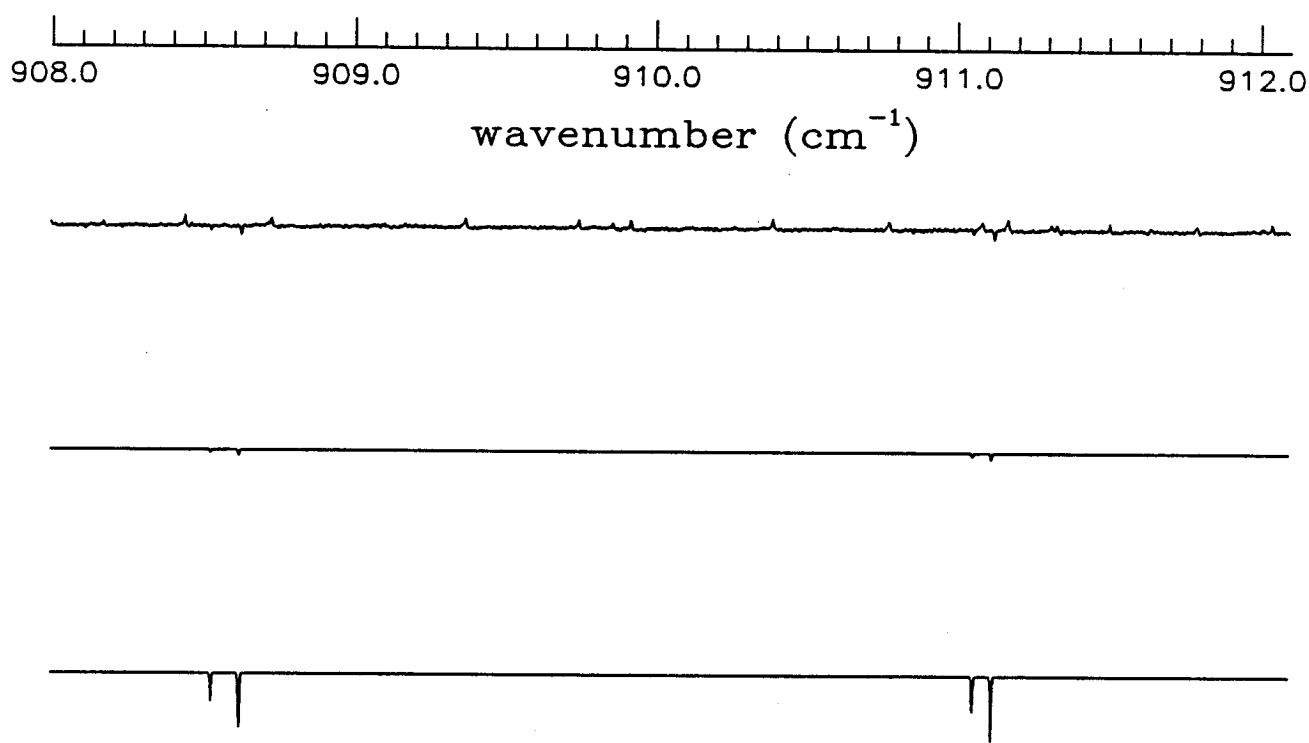
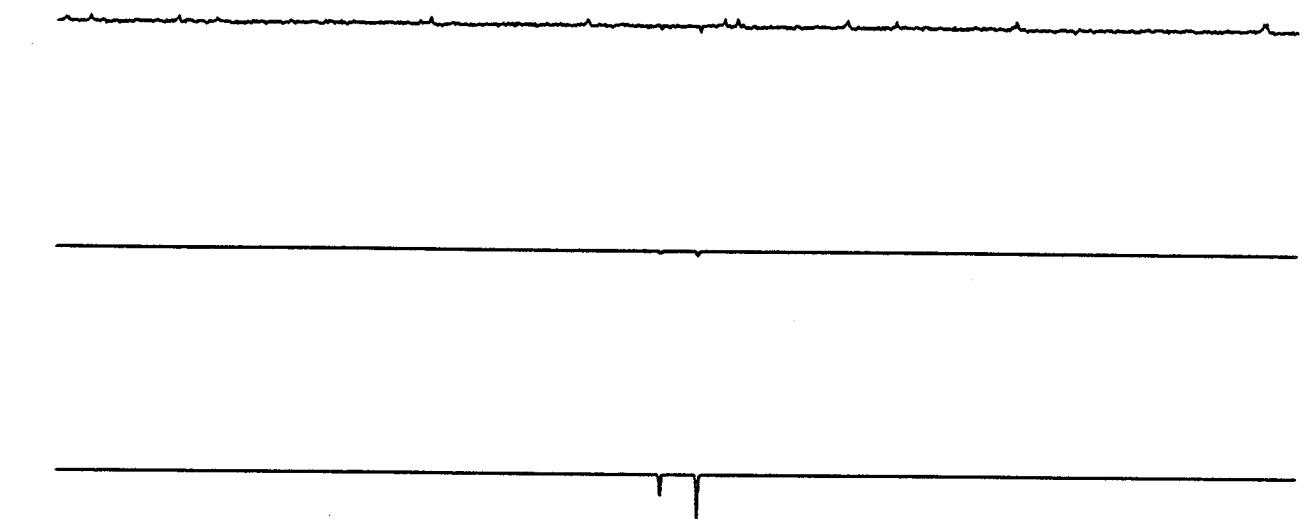
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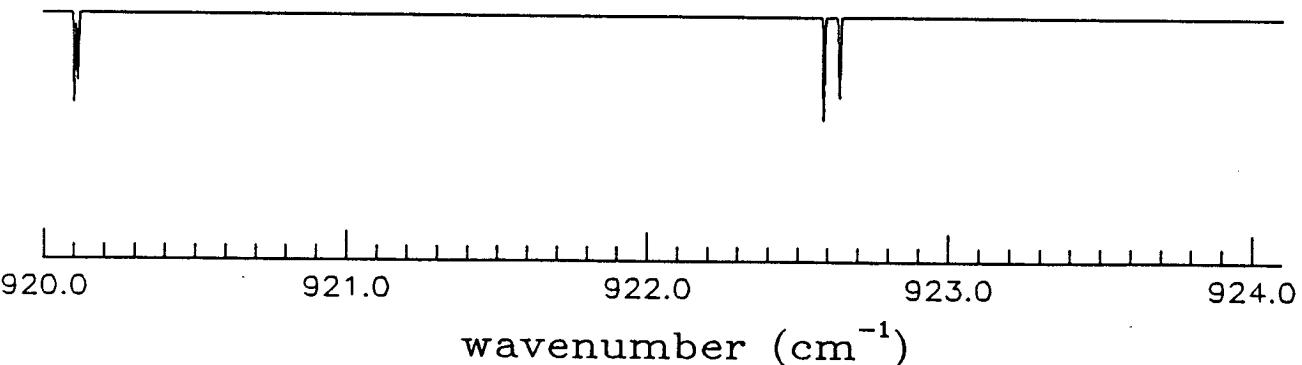
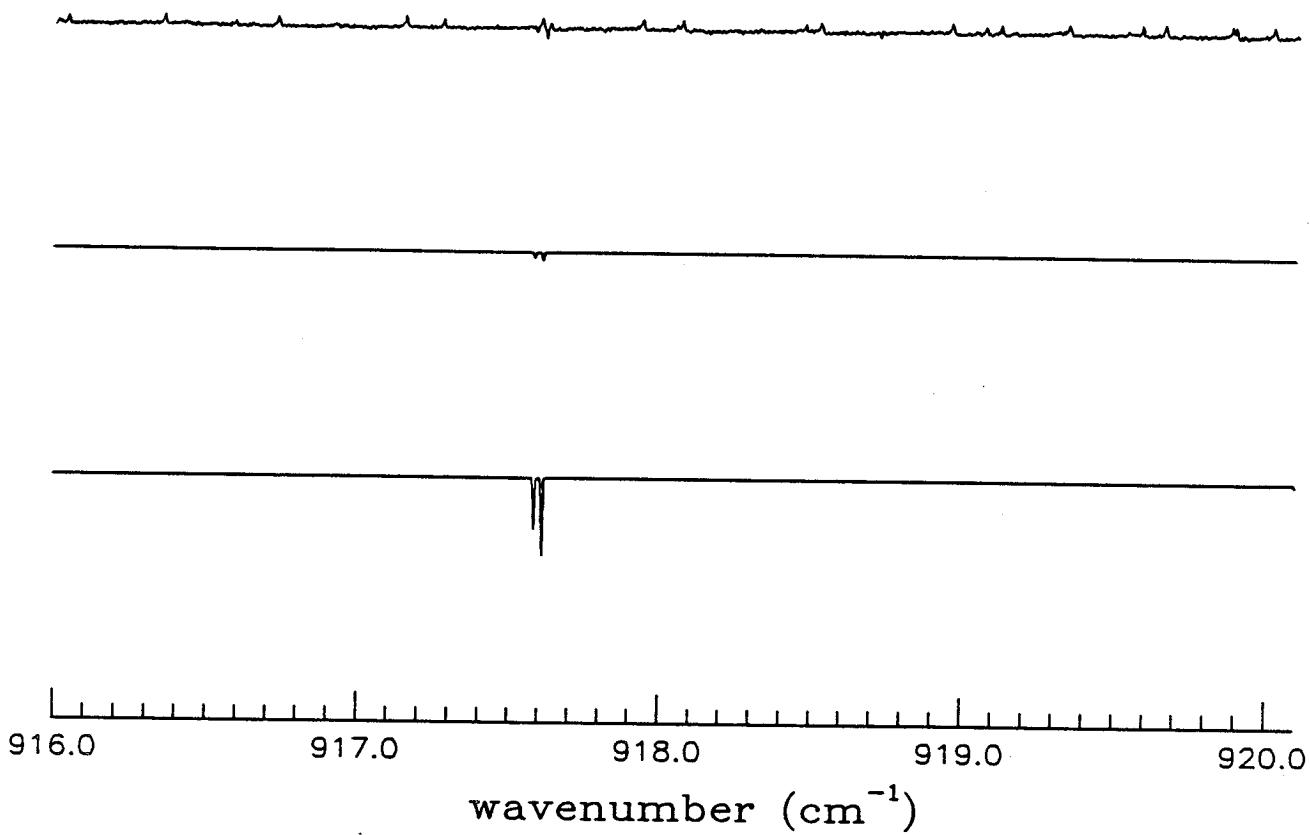
Figure 1: Observed and Calculated Spectra of the ν_3 , ν_4 , and ν_6 Bands of H_2CO from 900 cm^{-1} to 1580 cm^{-1} .

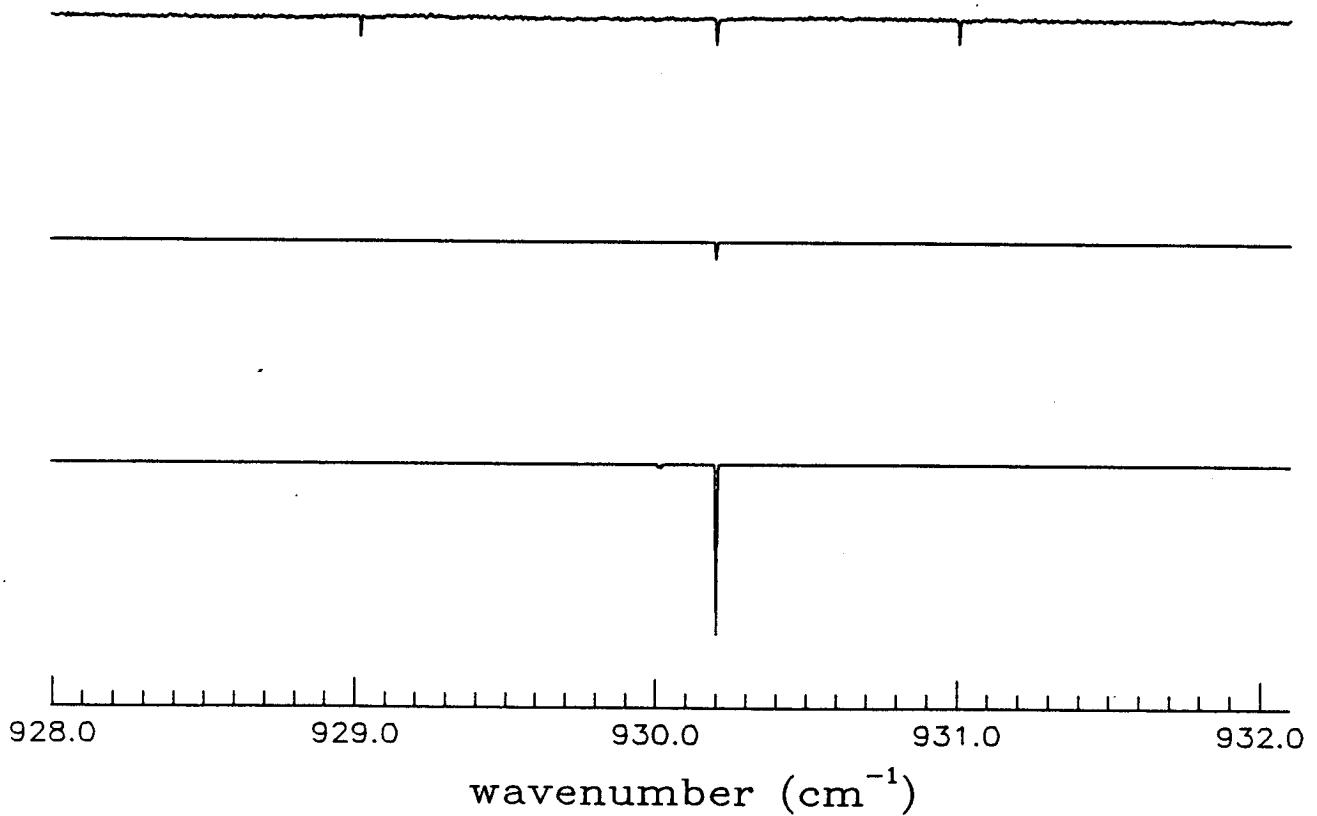
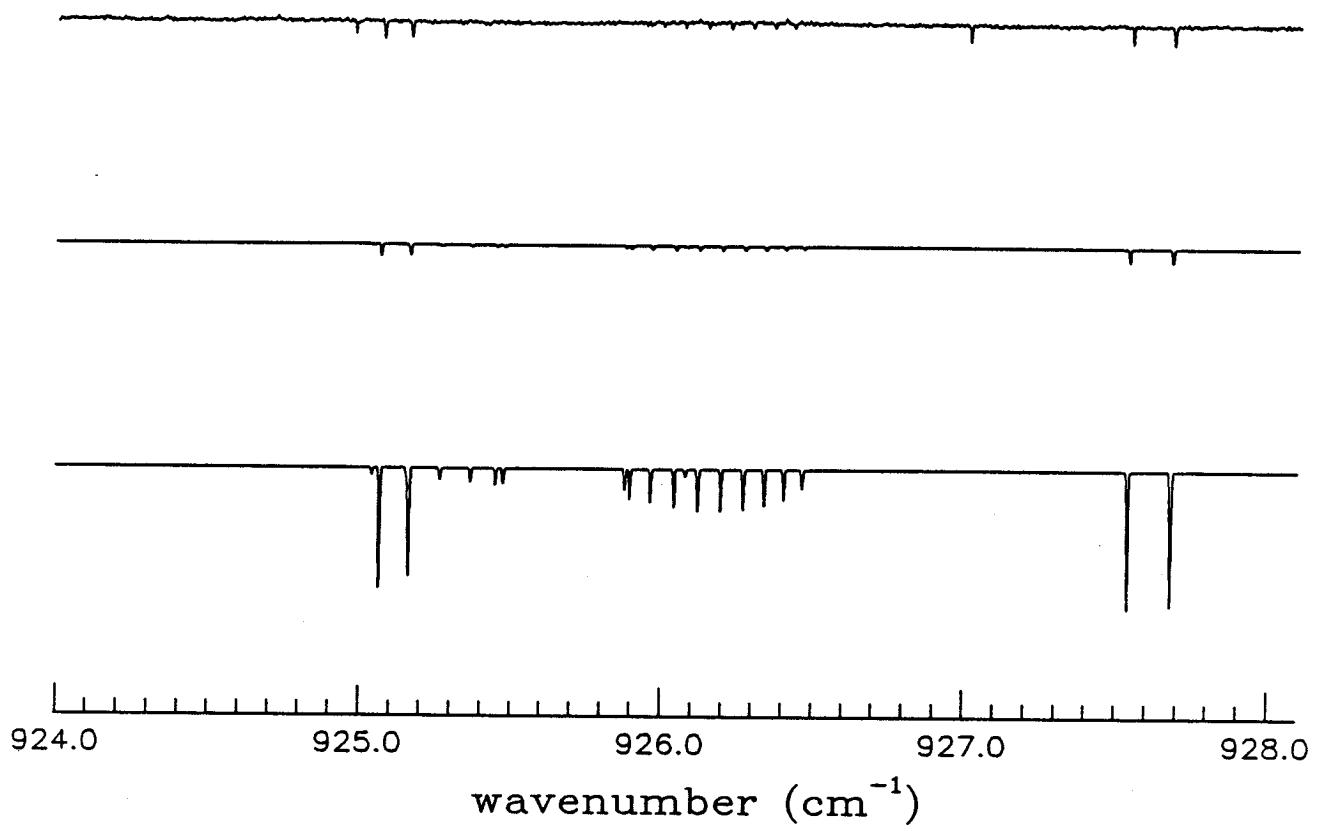
The top trace is the observed spectrum.

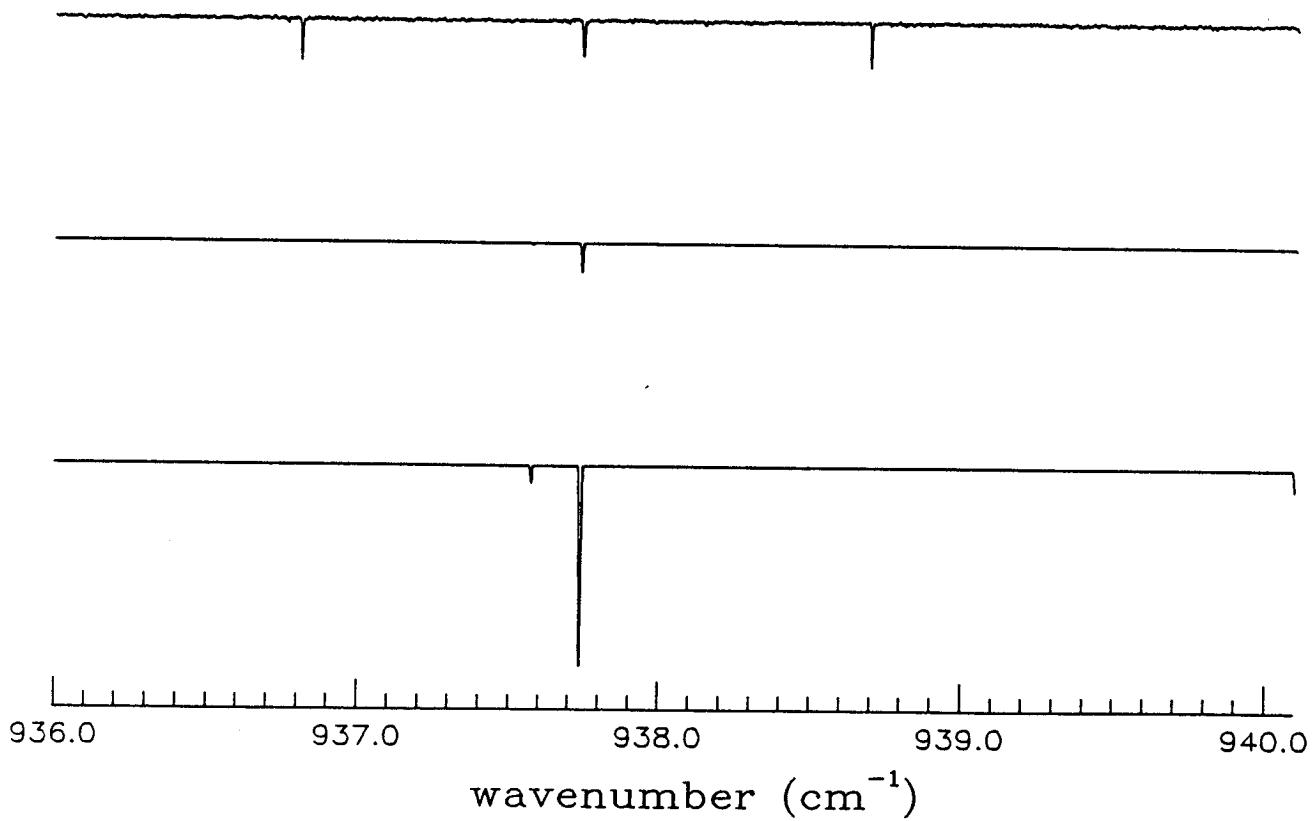
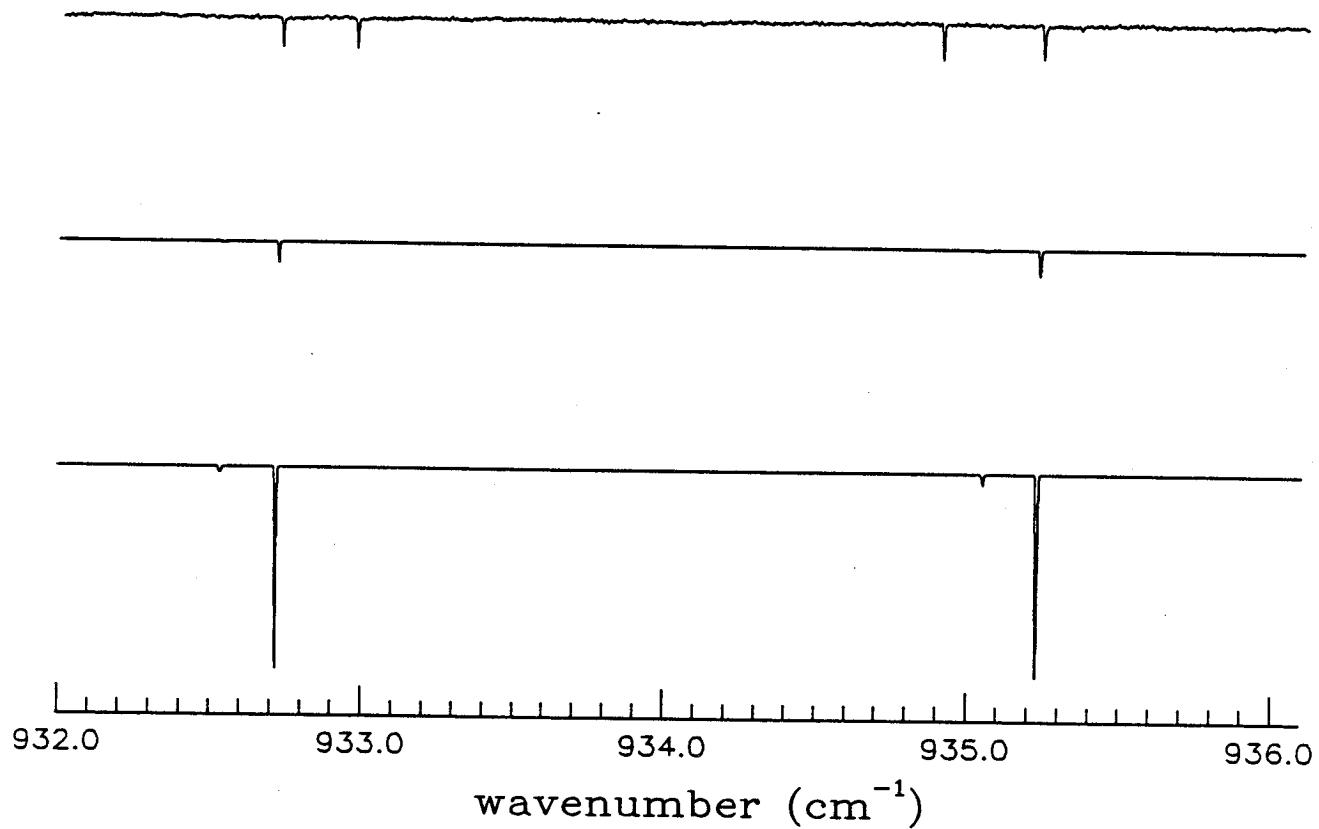
The middle trace is the calculated spectrum normalized so that the strongest feature in each band has a transmittance of 5% and the bottom trace is the same as the middle trace except that full scale corresponds to 90% transmittance.

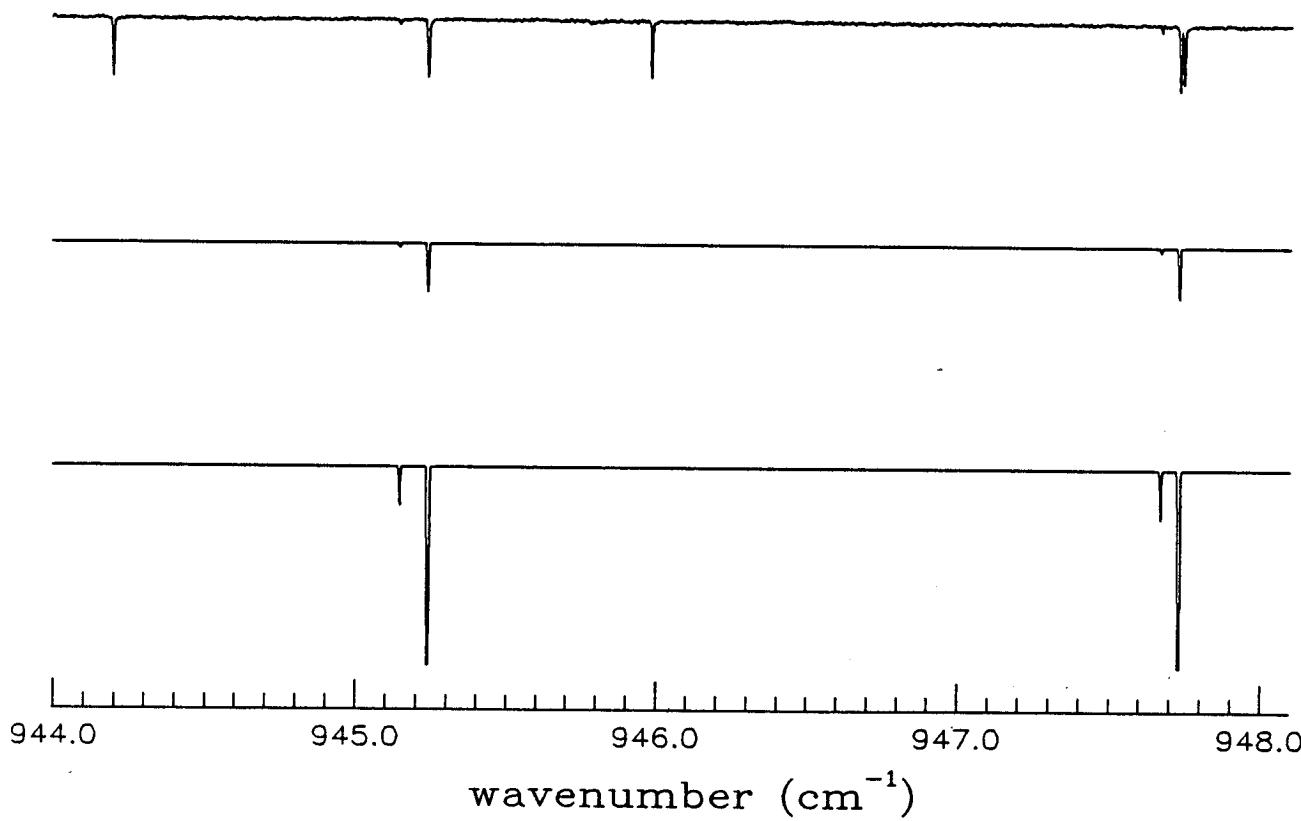
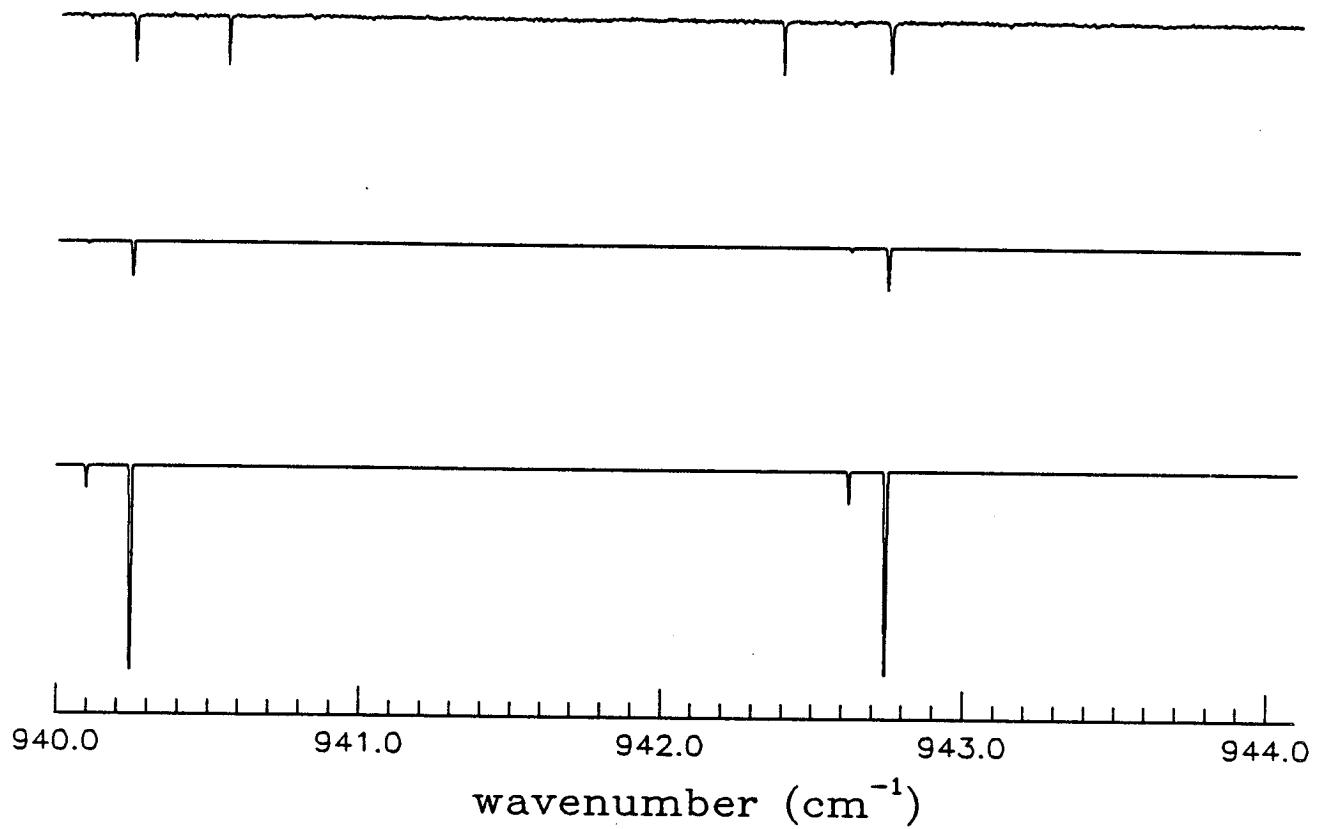


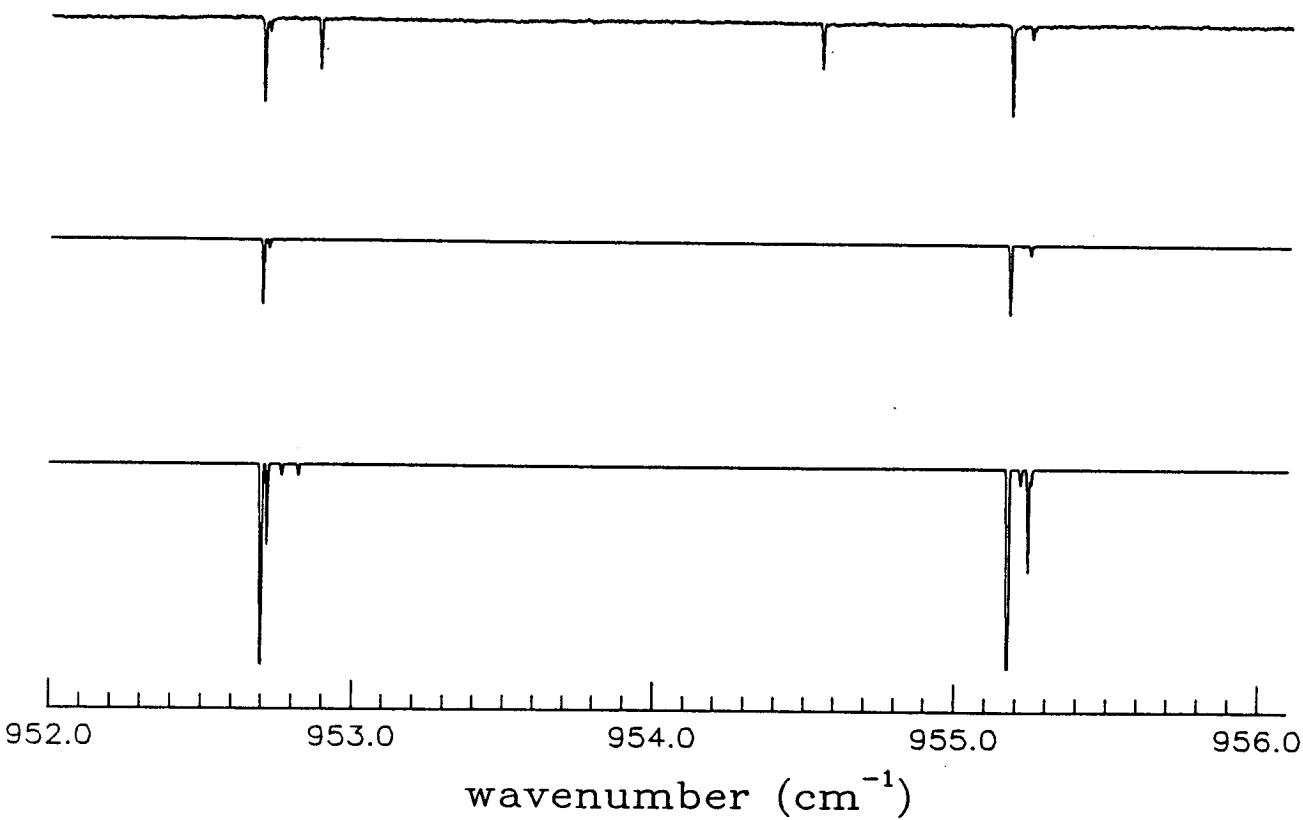
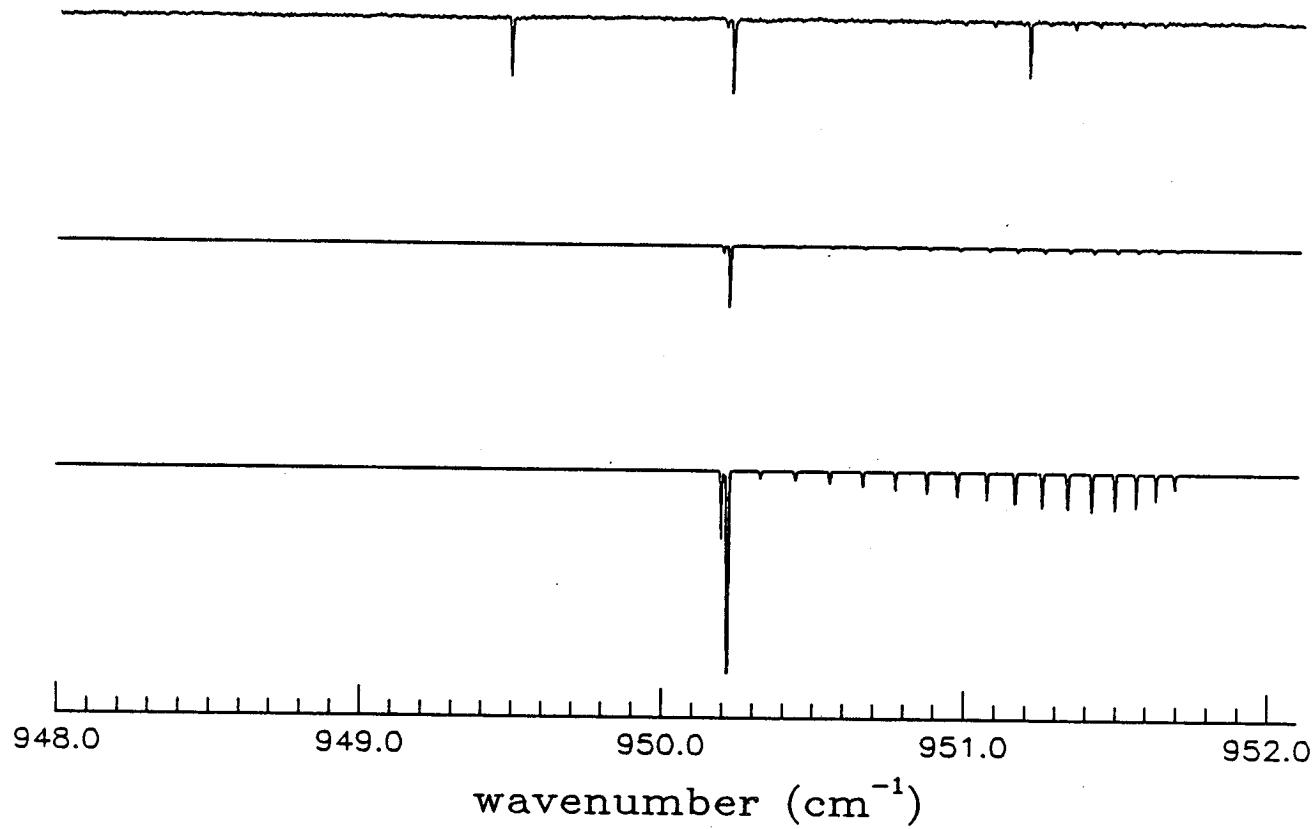


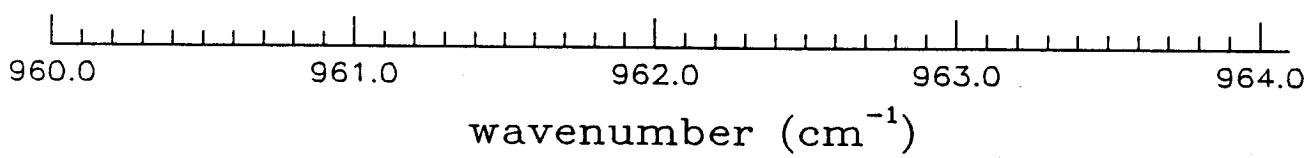
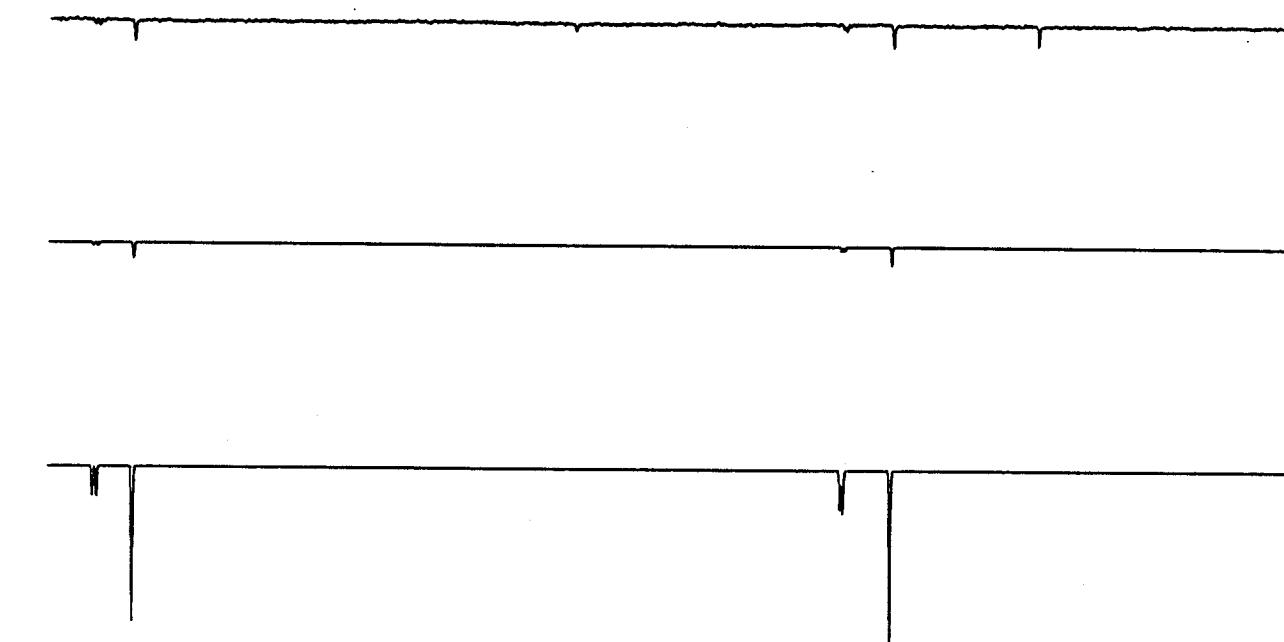
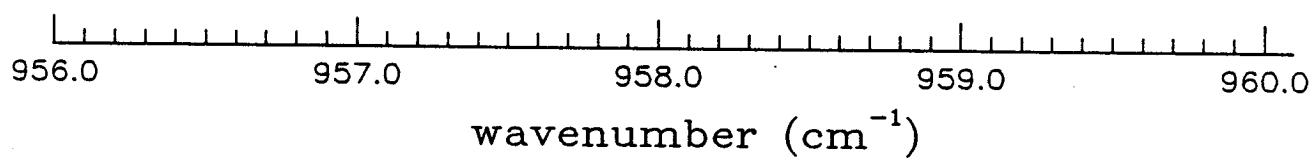
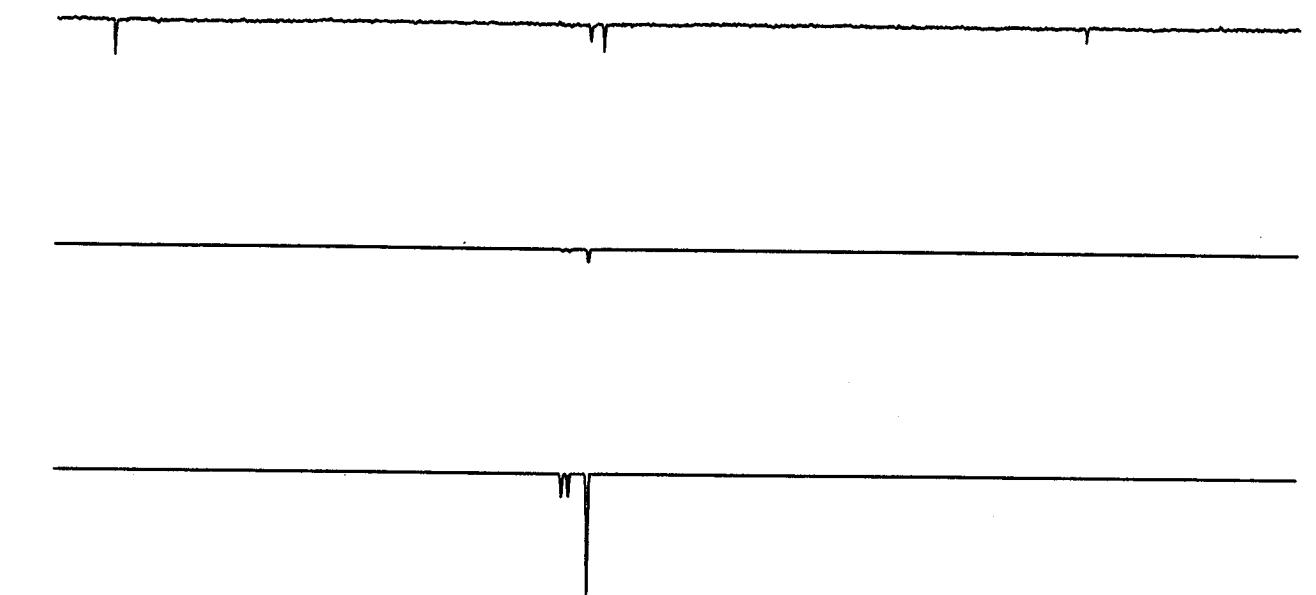


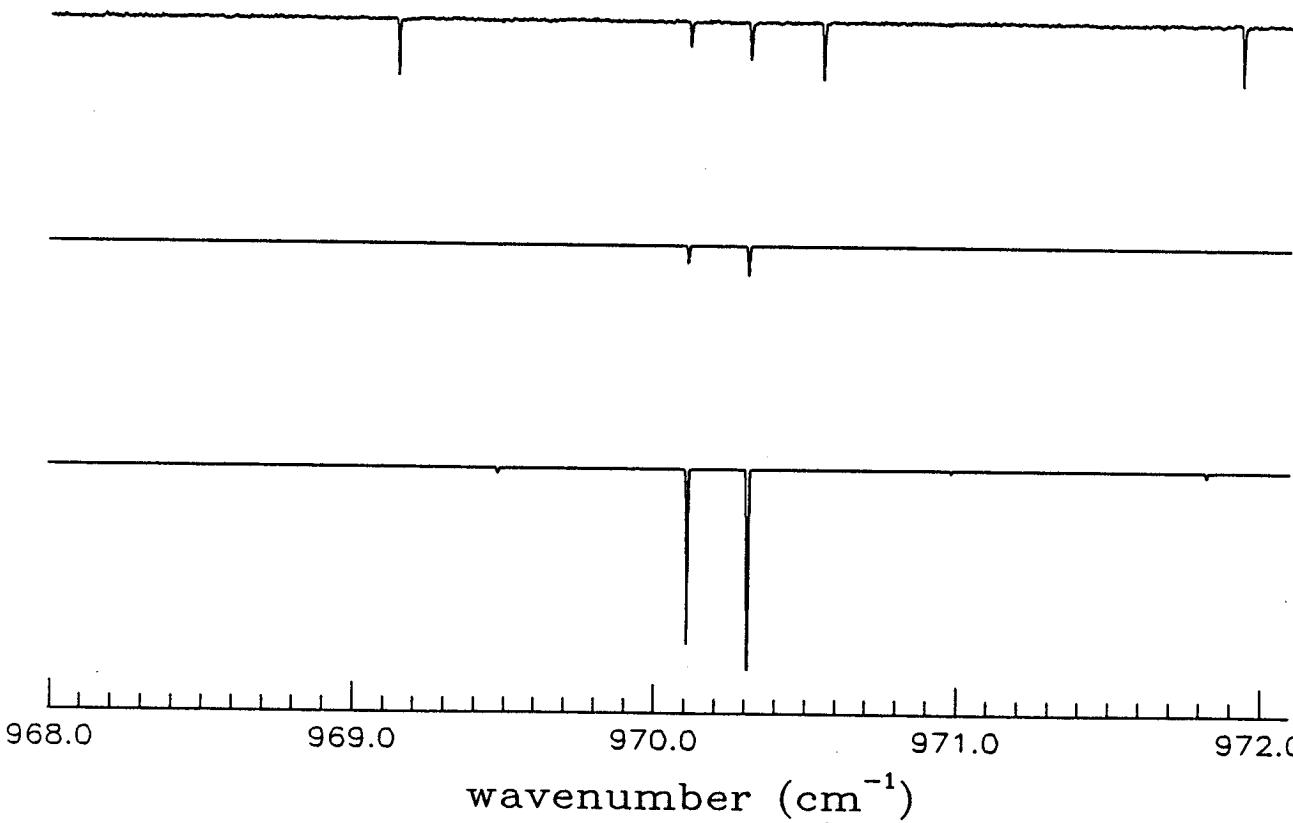
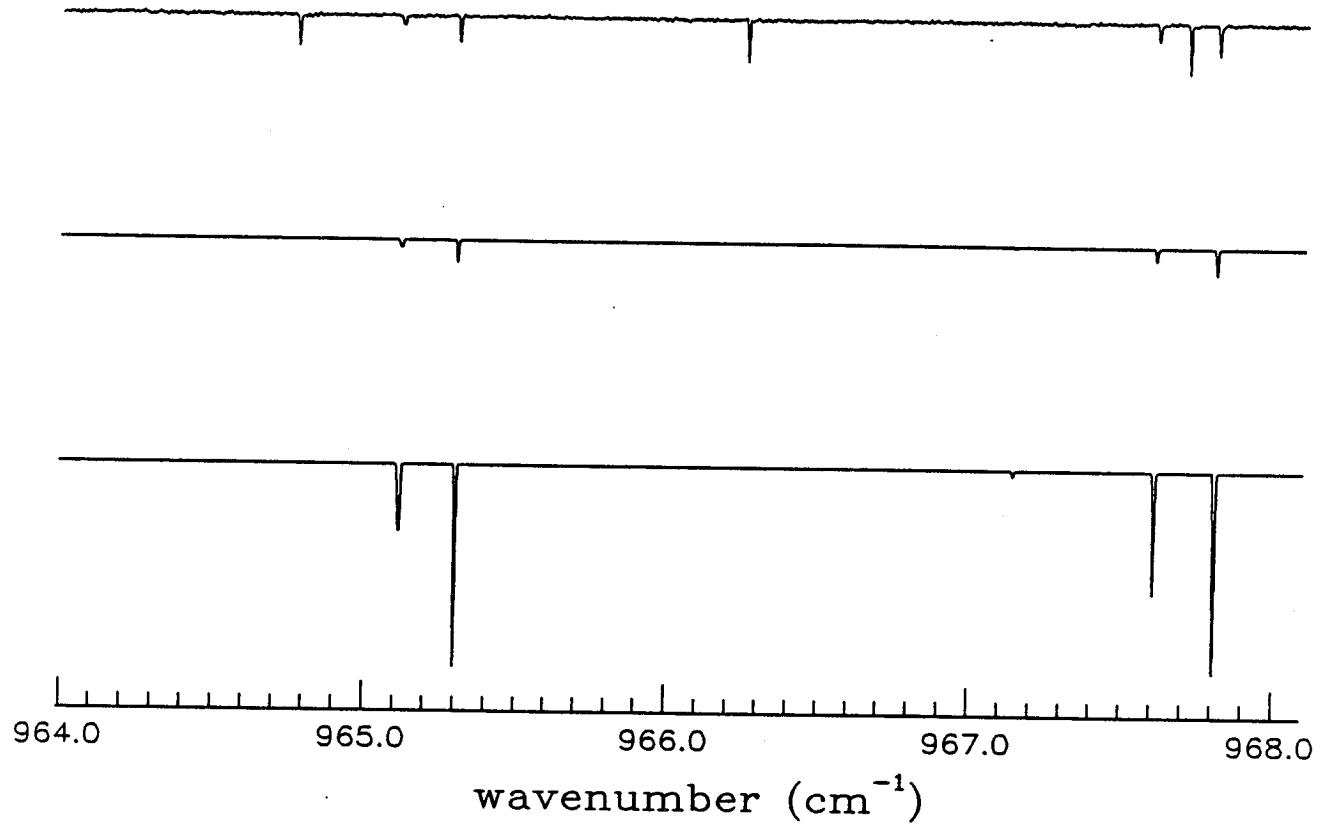












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J.W.C. Johns

*Herzberg Institute of Astrophysics,
Ottawa, Canada*



National Aeronautics and
Space Administration

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This catalog presents the results of a complete high resolution study of the three vibration-rotation bands v_3 , v_4 , and v_6 using both TDLs and FT-IR spectroscopy. The results are given in terms of a table of over 8000 predicted transition frequencies and strengths. A plot of the predicted and observed spectra is also shown. Over 3000 transitions were assigned and used in the simultaneous analysis of the three bands. The simultaneous fit permitted a rigorous study of Coriolis and other type interactions among the bands yielding improved molecular constants. Line intensities of 28 transitions measured by a TDL and 20 transitions from the FTS data were used, along with the eigenvectors from the frequency fitting, in a least squares analysis to evaluate the band strengths.

EXPERIMENTAL

High resolution FT-IR spectra of H_2CO from 890 to 1580 cm^{-1} have been recorded with a Bomem interferometer at the Herzberg Institute of Astrophysics in Ottawa. This instrument has an unapodized resolution of $\sim 0.0024\text{ cm}^{-1}$. The spectra reported were apodized using a Hamming window yielding an observed width of 0.004 cm^{-1} . The spectra contained nearly 4000 transitions arising from the v_3 , v_4 , and v_6 bands. A peak finder program running on the PDP-11 computer of the Bomem interferometer provided a measured wavenumber listing for these transitions. A trace of CO_2 gas introduced into the sample cell provided for absolute calibration. The spectra were recorded in four separate bands; 889 to 1095 cm^{-1} with a CO_2 pressure of 4 torr and 200 millitorr of H_2CO , 1079 to 1280 cm^{-1} with 4 torr of CO_2 and 200 millitorr of H_2CO , 1275 to 1450 cm^{-1} with 100 millitorr of H_2CO , and 1418 to 1580 cm^{-1} with 75 millitorr of H_2CO . All measurements were taken in a 6.75 meter cell at room temperature.

The observed transitions obtained from the FT-IR spectrum were assigned using ground-state-combination-differences. This method determines the upper state energy levels by a combination of observed infrared transition wavenumbers and the appropriate ground state energies. Line assignments were governed by the selection rules for an asymmetric top (formaldehyde is a near prolate symmetric top with

$\kappa = -0.961$). For any infrared-active band, the selection rules for the total angular momentum are $\Delta J = -1, 0$, or $+1$ for the P, Q, or R branches respectively, with the constraint that no transitions occur between states with $J=0$ in both upper and lower levels. The selection rules for K_a and K_c are:

$$\begin{array}{lll} \text{A-type bands:} & \Delta K_a = 0, +/-2, +/-4, \dots & ; \quad \Delta K_c = +/-1, +/-3, +/-5, \dots \\ \text{B-type bands:} & \Delta K_a = +/-1, +/-3, +/-5, \dots & ; \quad \Delta K_c = +/-1, +/-3, +/-5, \dots \\ \text{C-type bands:} & \Delta K_a = +/-1, +/-3, +/-5, \dots & ; \quad \Delta K_c = 0, +/-2, +/-4, \dots \end{array}$$

In formaldehyde, v_3 , v_4 , and v_6 are A-, C- and B-type bands respectively.

The ground state energy levels for all transitions up to $J''=30$ and $K_a''=10$ were generated from the ground state rotational constants reported by Cornet and Winnewisser (1). Using these values in the GSOD computations, yielded predicted transition frequencies within 1 milli-wavenumber of the observed for transitions with $J < 15$ and $K_a < 5$. The errors in predicting higher J and K_a transitions were within 3 milli-wavenumbers.

THEORY

Frequency Analysis

The application of rotation-vibration theory to the analysis of the interacting v_4 , v_6 , and v_3 bands of formaldehyde has been discussed elsewhere (2,3,4,5) and, as such, will only be very briefly summarized here. The rotational Hamiltonian used in the current study is the Watson A reduced Hamiltonian with all terms up to sextic in centrifugal distortion included (6). The $|\Delta K|=1$ a-type Coriolis interaction between v_4 and v_6 , as well as the b-type Coriolis interaction between v_4 and v_3 and the c-type Coriolis interactions between v_6 and v_3 are included as is a further higher order asymmetric effect $|\Delta K|=2$ interaction between v_4 and v_6 (3). All of these terms, excluding some of the sextic centrifugal distortion terms, were included in an earlier analysis of these bands (2). However, to adequately explain the data in the current study it was found necessary to include a higher order $|\Delta K|=3$ interaction term between v_6 and v_3 . The effect of this term, which is partly due to a combined Coriolis interaction and asymmetric effects has been discussed earlier (3) but its magnitude

had not been accurately determined. This term is most important for transitions ending in $K_a=6$ of v_6 and $K_a=3$ in v_3 and has little effect on other states. It was also found to be necessary to include more of the sextic centrifugal distortion terms in this analysis than in reference (2) because of the higher spectral resolution and greater range in J and K of the present data. A more complete description of the theory and the method of calculation of energies for the Hamiltonian described above, (including the form of the matrix elements), may be found in references (4,5).

Intensity Analysis

Given the transformation matrices which diagonalize the ground and upper state molecular Hamiltonians written in a rigid rotor-harmonic oscillator basis set, one can calculate the intensity of a given transition by pre-multiplying the transition dipole matrix, (written in the same basis set), by the ground state transformation and post multiplying it by the upper state transformation. For a given vibrational state the transition dipole matrix is a multiple of the derivative of the dipole moment with respect to the vibrational coordinate times a direction cosine term. When there are elements in the molecular Hamiltonian which connect different vibrational basis sets (e.g. Coriolis coupling terms) the intensity contains terms from more than one vibrational state and the relative signs of the dipole moment derivatives for the various vibrational motions become important. In the current work the magnitudes and relative signs of the derivatives for v_3 , v_4 , and v_6 were determined by a least squares fitting procedure using intensity data determined in a diode laser study (7). Again, for a more thorough discussion of the intensity fitting procedure the reader is referred to references (4,5).

RESULTS

The molecular parameters resulting from the fitting of the observed infrared and excited state microwave transition frequencies are given in Table 1. The parameters fit are the rotationless energies of each of the upper states as well as the rotational constants, the quartic centrifugal distortion constants, the diagonal sextic constants, except for H_J , and five inter-state interaction coefficients. This choice of parameter set is reasonable but somewhat arbitrary, and the least squares fit is not a well posed problem. However, this set of 41 constants was the fewest which could be used in

Table 1: Molecular Constants for the v_3 , v_4 and v_6 Bands of H_2CO .

| <u>Ground State^a</u> | <u>$v_4=1$</u> | <u>$v_6=1$</u> | <u>$v_3=1$</u> | |
|---------------------------------|----------------------------|---------------------------|---------------------------|------------------------------|
| v_0 | 1167.25675(4) ^b | 1249.09438(4) | 1500.17452(5) | |
| A | 9.4055259 | 9.38109(121) | 9.39539(121) | 9.46712(1) |
| B | 1.2954310 | 1.291412(3) | 1.298153(1) | 1.295821(4) |
| C | 1.1341914 | 1.1356615(6) | 1.1296077(31) | 1.1295653(35) |
| Δ_K | 6.479062 | 2.1096(47) | 10.9804(45) | 6.8893(36) $\times 10^{-4}$ |
| Δ_{JK} | 4.304664 | 3.7045(70) | 5.2059(74) | 4.1347(50) $\times 10^{-5}$ |
| Δ_J | 2.511582 | 2.4727(7) | 2.5605(8) | 2.7282(9) $\times 10^{-6}$ |
| R_5 | -1.711235 | -1.2204(37) | -2.1158(45) | -2.2614(49) $\times 10^{-5}$ |
| δ_J | 3.487999 | 2.9385(27) | 3.6526(37) | 4.6264(33) $\times 10^{-7}$ |
| H_K | 1.500705 | 1.503(141) | 1.572(138) | 1.951(31) $\times 10^{-7}$ |
| H_{KJ} | -0.374192 | -2.749(74) | 4.234(99) | -4.519(143) $\times 10^{-8}$ |
| H_{JK} | 0.96797 | 0.188(85) | 2.828(59) | -0.687(68) $\times 10^{-9}$ |
| H_J | 1.04856 | c | c | c $\times 10^{-12}$ |
| h_J | 1.41427 | c | c | c $\times 10^{-12}$ |
| h_{JK} | 5.22558 | c | c | c $\times 10^{-10}$ |
| h_K | 4.5769 | c | c | c $\times 10^{-8}$ |

Coriolis Constants

| | |
|------------------|-------------------------------|
| ξ_{64}^a | 10.44086(473) |
| ξ_{34}^b | 1.7505(2) |
| ξ_{36}^c | 0.68836(62) |
| η_{64}^{bc} | -1.9532(122) $\times 10^{-3}$ |
| z_{36} | -7.968(80) $\times 10^{-6}$ |

- a. From reference 1.
- b. The uncertainties in parenthesis are 1σ from the least-squares fit, right-adjusted to the last digit of the parameter.
- c. These parameters were fixed to the ground state values.
Weighted fitting error = 0.852
Normalized fitting error = $7.47 \times 10^{-4} \text{ cm}^{-1}$

which fitting results were not markedly improved by the addition of further fitting parameters. Also given in Table 1 are two measures of goodness of fit; the weighted fitting error defined as: $(\sum \omega_i \Delta_i^2 / (N - N_p))^{1/2}$ and the normalized fitting error defined as: $(\sum \omega_i \Delta_i^2)^{1/2}$. In these expressions ω_i is the inverse of the squared error in measurement i , Δ_i is the residual of the fit for transition i , N is the total number of lines fit, N_p is the number of parameters, and $\omega_i = \omega / \sum \omega_i$. The uncertainties chosen for the infrared transitions were 0.0005 cm^{-1} for upper states with $J < 15$ and $K < 5$ and 0.001 cm^{-1} for most of the rest of the lines, although some blended lines were assigned uncertainties of 0.002 cm^{-1} . The low J and K uncertainty is about 2-3 times the measurement error, as determined from the CO_2 calibration lines. The excess uncertainty reflects effects of terms not included in the fitting process which are expected to have more influence at higher J and K . The uncertainties for the microwave data were taken to be the experimental error (1). Note that the weighted fitting error should be about 1 if the weights are correct. The parameters obtained were not strongly dependent upon the weights chosen.

The results of the fitting procedure for the intensities are given in Table 2. Here the measured intensities for v_4 and v_6 were taken from a diode laser study (7) and the intensities for v_3 were taken from the FTIR data described above. To convert the v_3 FTS intensity data to the diode laser units about 20 observed and calculated relatively weak (transmittance $> 70\%$) v_6 lines were used as a transfer standard. That is, the average multiplicative factor required to make the observed v_6 intensities agree with the calculated FT-IR v_6 intensities was applied to observed v_3 lines in the same intensity range. The multiplicative factor is expected to be a weak function of line strength and, in fact, it seems to vary about 5% over the intensity range chosen. This slight variation, which may be due to other effects, was ignored. As may be seen from the table essentially all of the calculated intensities agree with the observed to better than 10 to 20 percent, although there are a few outliers. It should be noted that the results degraded significantly if mixing of vibrational states was ignored in the determination of the intensities or if different relative signs were used for the dipole moment derivatives. The uncertainties used in determining the weights used in the least squares fitting procedure were taken to be the experimental uncertainty given in reference (7) for the diode data (with an additional error of 0.001 added) while the FTS data was given less weight.

A complete listing of all H_2CO v_3 , v_4 , and v_6 lines whose calculated intensities are greater than 0.01% of the strongest line is given in Table 3. For those lines which were identified and used in the frequency fitting procedure the residual (obs. - cal.

Table 2: Results of Intensity Fitting.

| Band v | Upper State J K _a K _c | Lower state J K _a K _c | Obs. Int cm ⁻² atm ⁻¹ | Obs.-Cal. cm ⁻¹ | Frequency |
|-----------|--|--|--|-------------------------------|-----------|
| 6 | 17 4 14 | 18 5 13 | 0.00323 | -0.00066 | 1148.3347 |
| 6 | 17 4 13 | 18 5 14 | 0.00340 | -0.00049 | 1148.3602 |
| 4 | 11 2 9 | 10 3 7 | 0.02113 | -0.00118 | 1148.3451 |
| 4 | 3 0 3 | 4 1 3 | 0.04737 | 0.00651 | 1148.4704 |
| 4 | 16 1 15 | 16 2 15 | 0.01866 | 0.00187 | 1148.5084 |
| 4 | 1 0 1 | 1 1 1 | 0.02953 | -0.00004 | 1159.1358 |
| 4 | 2 0 2 | 2 1 2 | 0.04846 | -0.00009 | 1159.2718 |
| 4 | 28 2 27 | 28 1 27 | 0.00594 | 0.00067 | 1159.2931 |
| 4 | 15 2 13 | 14 3 11 | 0.01883 | -0.00319 | 1159.3918 |
| 6 | 6 6 1 | 7 7 0 | 0.00744 | 0.00194 | 1159.4110 |
| 4 | 9 1 9 | 8 2 7 | 0.00743 | -0.00051 | 1159.4397 |
| 4 | 3 0 3 | 3 1 3 | 0.06663 | 0.00019 | 1159.4717 |
| 4 | 18 2 17 | 18 1 17 | 0.03208 | 0.00402 | 1172.3860 |
| 4 | 6 1 6 | 6 0 6 | 0.02843 | 0.00026 | 1172.5256 |
| 6 | 12 2 1 | 13 3 10 | 0.01898 | -0.00043 | 1180.6443 |
| 6 | 4 4 1 | 5 5 0 | 0.01921 | 0.00163 | 1180.7330 |
| 4 | 24 0 24 | 23 1 22 | 0.00261 | -0.00143 | 1180.8077 |
| 4 | 11 2 10 | 11 1 10 | 0.03400 | -0.00142 | 1180.8323 |
| 6 | 13 2 11 | 14 3 12 | 0.01651 | -0.00247 | 1180.8831 |
| 6 | 10 4 7 | 10 5 6 | 0.01400 | 0.00274 | 1192.6082 |
| 6 | 3 3 1 | 4 4 0 | 0.01000 | 0.00116 | 1192.6272 |
| 6 | 9 4 6 | 9 5 5 | 0.01400 | 0.00321 | 1192.6657 |
| 6 | 18 1 17 | 19 2 18 | 0.00601 | -0.00068 | 1192.7378 |
| 6 | 7 4 4 | 7 5 3 | 0.01083 | 0.00237 | 1192.7652 |
| 6 | 10 1 10 | 11 2 9 | 0.00589 | -0.00023 | 1192.7954 |
| 6 | 6 4 3 | 6 5 2 | 0.00824 | 0.00180 | 1192.8068 |
| 6 | 5 4 2 | 5 5 1 | 0.00489 | 0.00119 | 1192.8428 |
| 6 | 19 7 13 | 18 6 12 | 0.00820 | 0.00058 | 1440.1333 |
| 6 | 20 7 14 | 19 6 13 | 0.00730 | 0.00094 | 1442.2636 |
| 6 | 17 8 10 | 16 7 9 | 0.02300 | 0.00104 | 1460.1858 |
| 6 | 18 8 11 | 17 7 10 | 0.01930 | 0.00048 | 1462.2888 |
| 6 | 20 8 13 | 19 7 12 | 0.01377 | 0.00047 | 1466.4432 |
| 6 | 22 8 15 | 21 7 14 | 0.00973 | 0.00079 | 1470.5292 |
| 3 | 24 1 24 | 25 1 25 | 0.04110 | 0.00757 | 1442.2324 |
| 3 | 22 2 20 | 23 2 21 | 0.01742 | 0.00435 | 1446.2075 |
| 3 | 22 3 20 | 23 3 21 | 0.04194 | 0.00924 | 1447.1261 |
| 3 | 19 0 19 | 20 0 20 | 0.03563 | 0.00355 | 1453.7086 |
| 3 | 20 6 14 | 21 6 15 | 0.00584 | 0.00015 | 1453.7134 |
| 3 | 17 4 13 | 18 4 14 | 0.02590 | 0.00405 | 1458.7240 |
| 3 | 17 4 14 | 18 4 15 | 0.02440 | 0.00255 | 1458.7334 |
| 3 | 1 0 1 | 2 0 2 | 0.03269 | 0.00058 | 1495.3252 |
| 3 | 1 0 1 | 0 0 0 | 0.01545 | -0.00093 | 1502.6116 |
| 3 | 9 6 4 | 9 6 3 | 0.01936 | 0.00067 | 1502.6545 |
| 3 | 11 6 6 | 11 6 5 | 0.01317 | 0.00062 | 1502.9181 |
| 3 | 5 2 4 | 4 2 3 | 0.04578 | -0.00504 | 1512.6594 |
| 3 | 5 2 3 | 4 2 2 | 0.04562 | -0.00516 | 1512.7188 |
| 3 | 6 5 1 | 5 5 0 | 0.02354 | -0.00271 | 1516.3326 |

Number of lines fit = 48

Rotational Partition Function = 2.8285908×10^3

frequency difference) is also given. Lines marked by an asterisk were included in the fit with zero weight and correspond to very blended lines, or lines expected to be perturbed by terms not included in the molecular Hamiltonian. Lines marked by R were excluded from the fit because their residuals were greater than 5 standard deviations. Strengths are given in terms of $\text{cm}^{-2}\text{atm}^{-1}$. The last part of Table 3 gives the residuals for 74 excited state pure rotation transitions which were included in the fitting.

Figure 1 is a plot of the observed and calculated spectrum from 900 cm^{-1} ($11.1 \mu\text{m}$) to 1580 cm^{-1} ($6.33 \mu\text{m}$). In this figure the top trace is the observed spectrum, the middle trace is the calculated spectrum normalized so that the strongest feature in each band has a transmittance of 5% and the bottom trace is the same as the middle trace except that full scale corresponds to 90% transmittance. This figure was obtained in the following manner. It was found that the observed spectral lines in each of the 4 regions described in the experimental section could be modelled quite well by a gaussian line shape although the optimal line width varied from about 0.0033 cm^{-1} to 0.0024 cm^{-1} . The entire spectrum was therefore calculated as a 0.0028 cm^{-1} gaussian and in each region 5 to 10 lines were used to find a multiplicative factor which minimized the difference between the observed and calculated spectra (which were both in absorbance). In each region the spectrum was scaled so as to make the exponential of the strongest calculated feature = 0.05. The scaling factor was applied to the entire observed and calculated spectra. This figure is for illustrative purposes only.

Finally, Table 4 gives the energies of all the states up to $J = 30$ in the ground and excited states v_3 , v_4 , and v_6 . The near coincidences of v_4 $K_a = 4$ and v_6 $K_a = 2$ states, v_6 $K_a = 6$ and v_3 $K_a = 3$ states, and v_3 $K_a = 7$ and v_4 $K_a = 10$ states are quite evident in this Table.

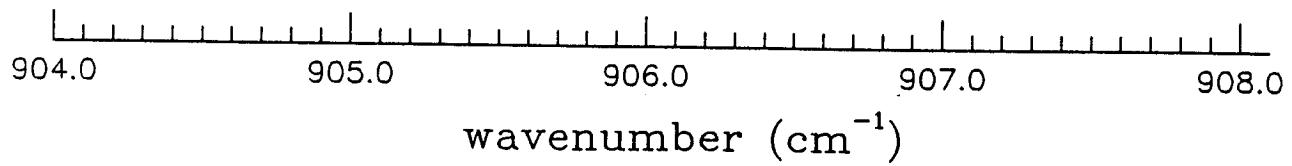
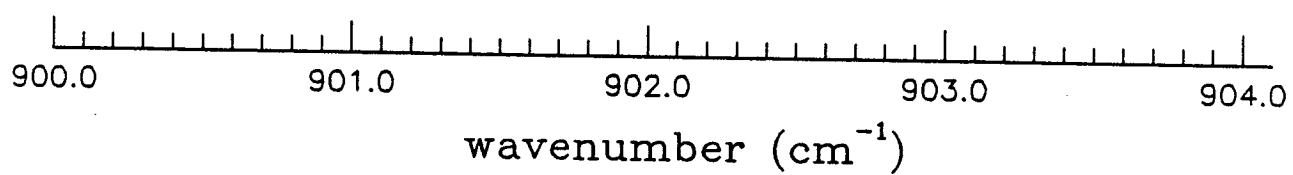
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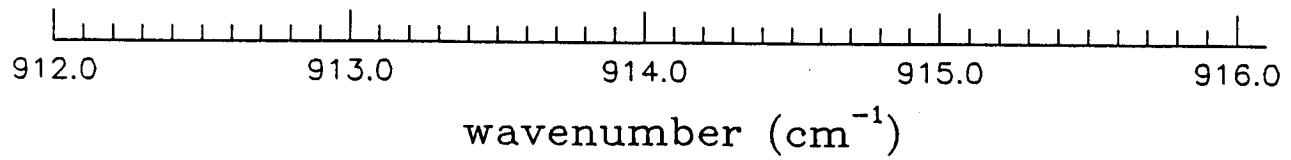
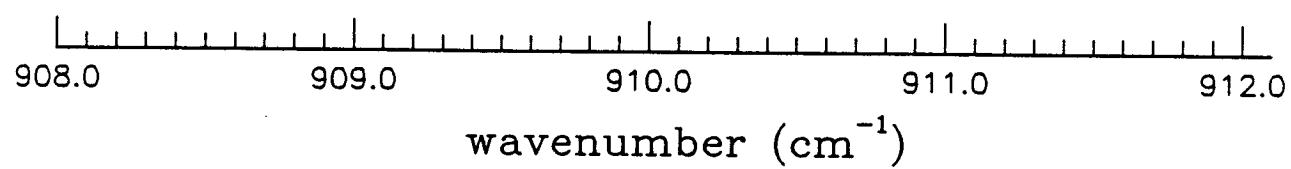
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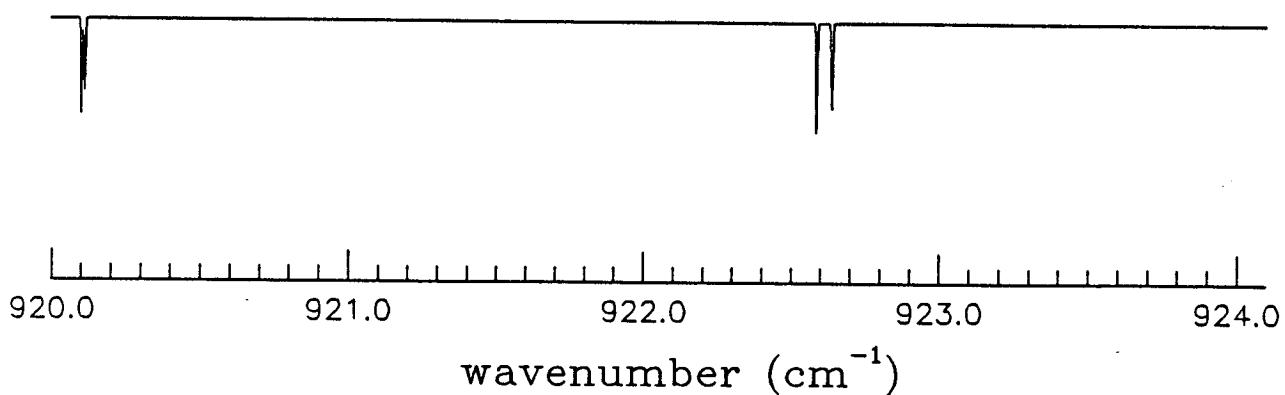
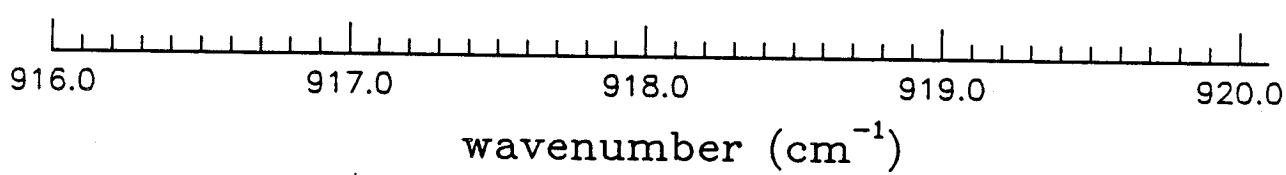
Figure 1: Observed and Calculated Spectra of the ν_3 , ν_4 , and ν_6 Bands of H_2CO from 900 cm^{-1} to 1580 cm^{-1} .

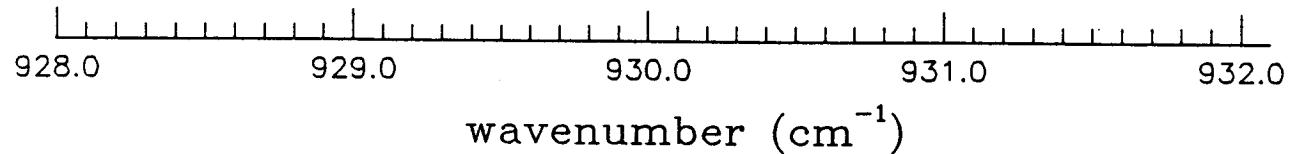
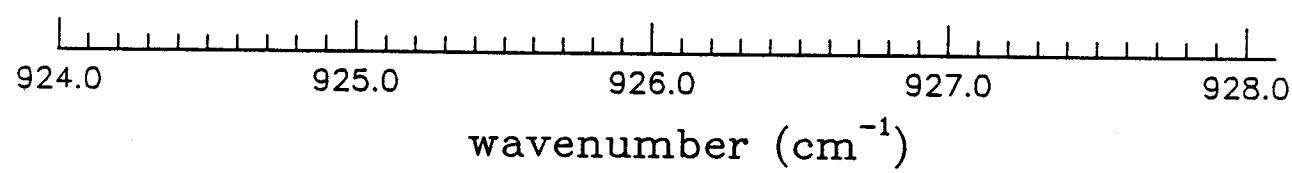
The top trace is the observed spectrum.

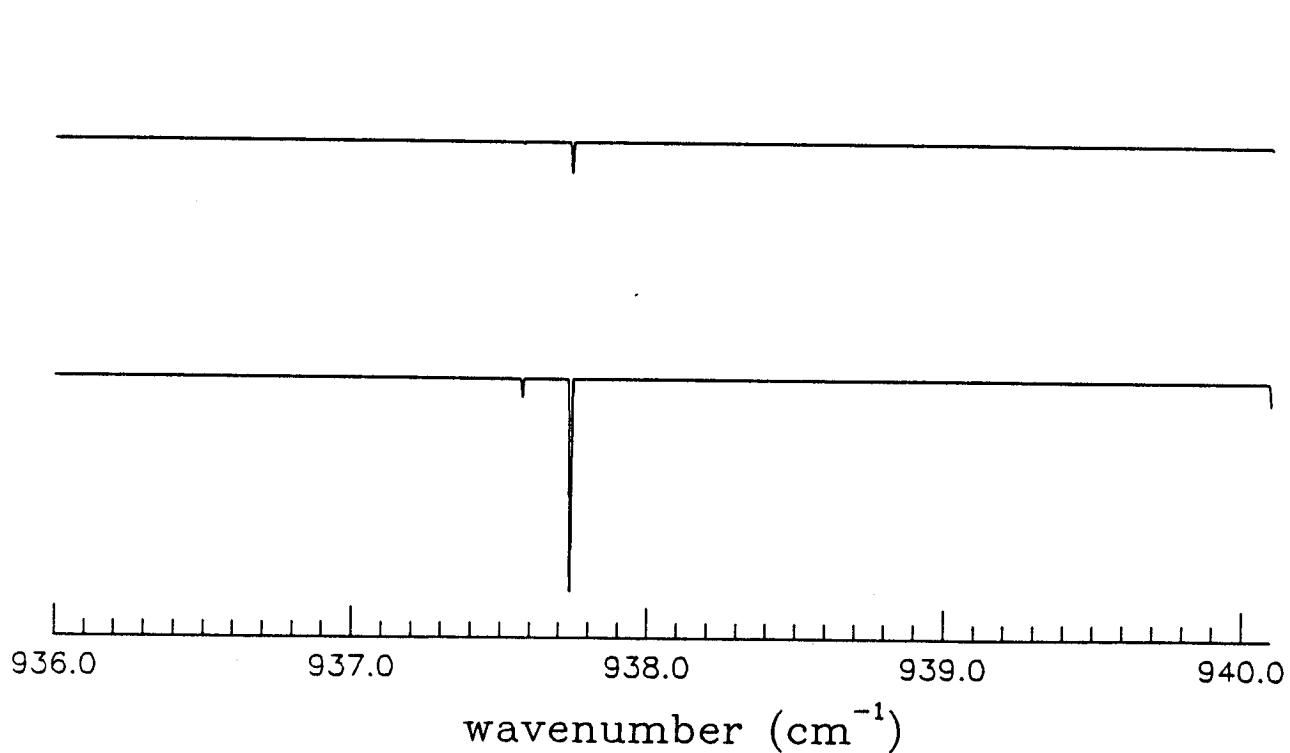
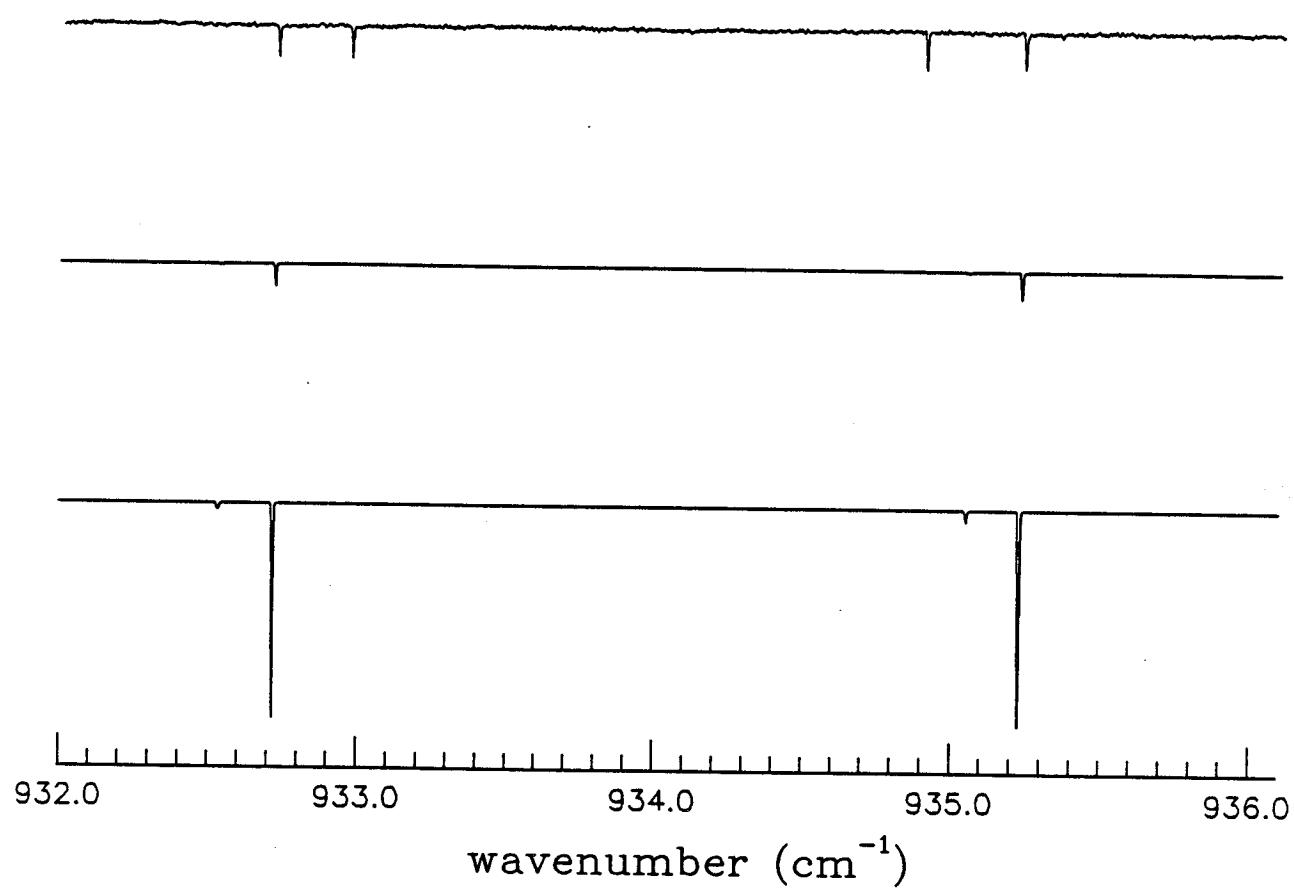
The middle trace is the calculated spectrum normalized so that the strongest feature in each band has a transmittance of 5% and the bottom trace is the same as the middle trace except that full scale corresponds to 90% transmittance.

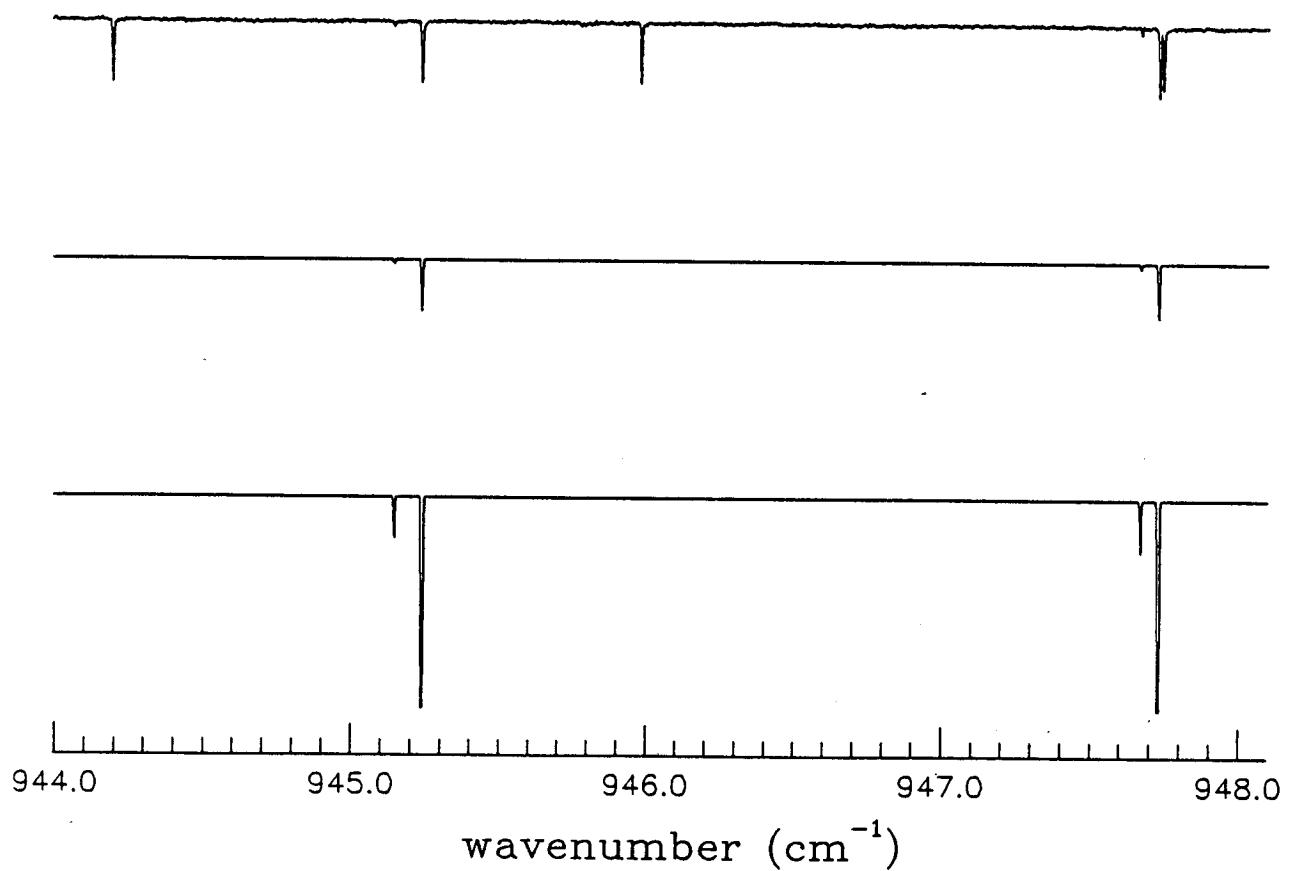
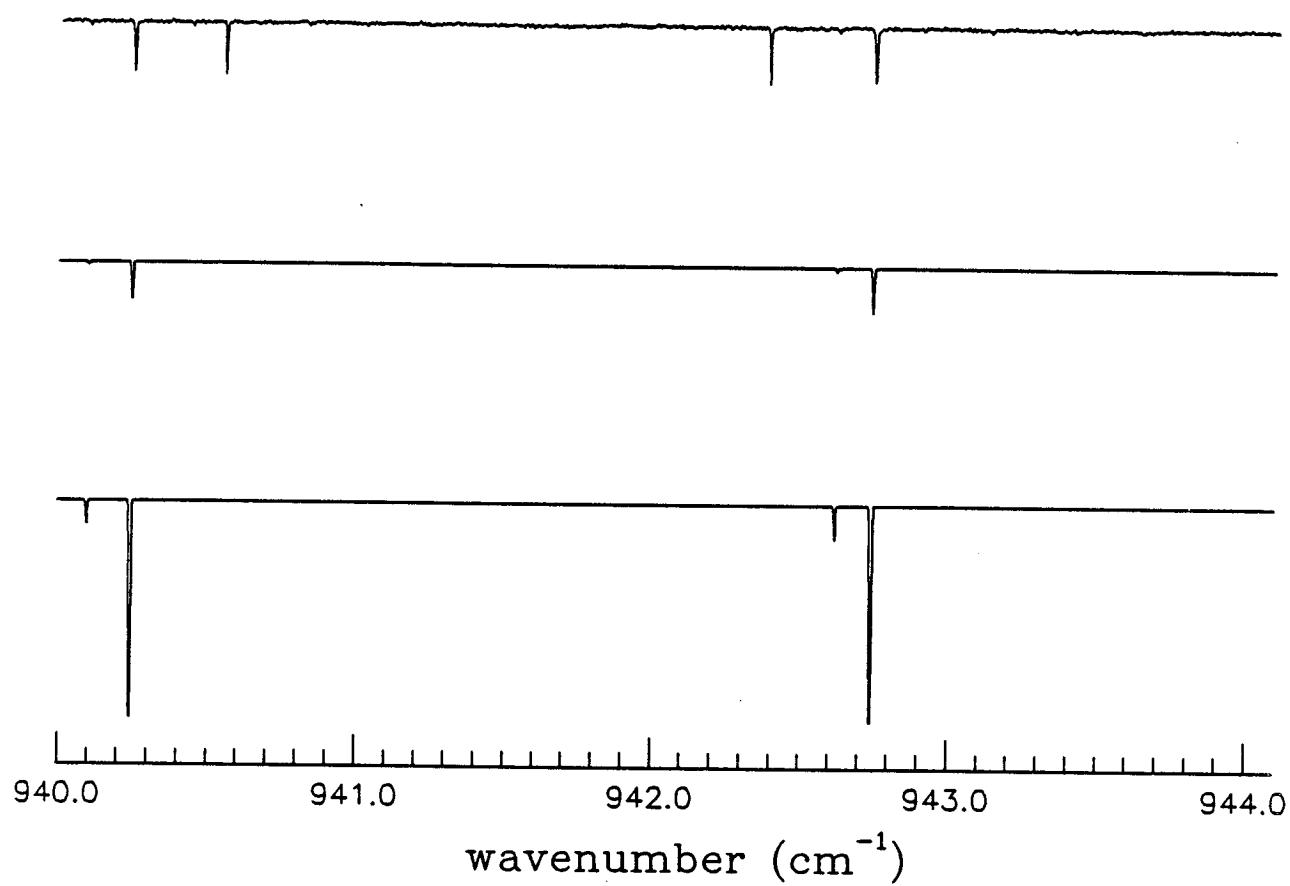


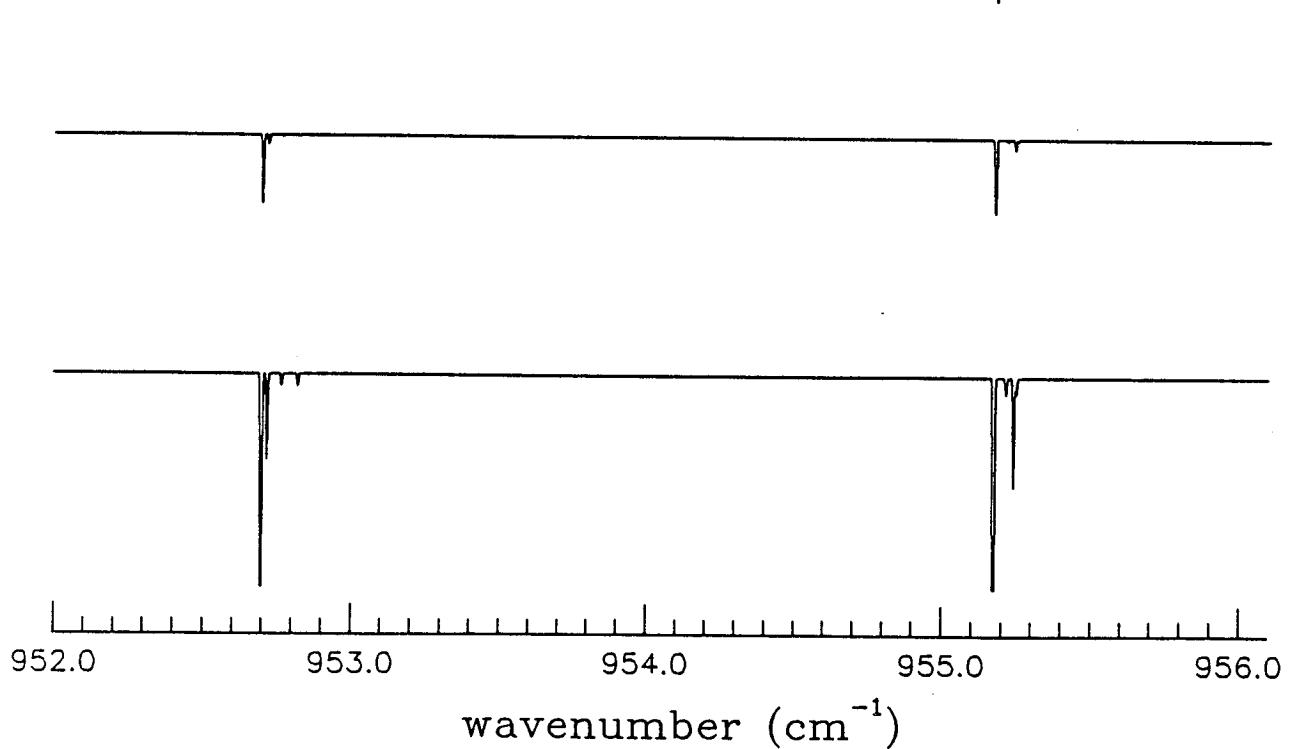
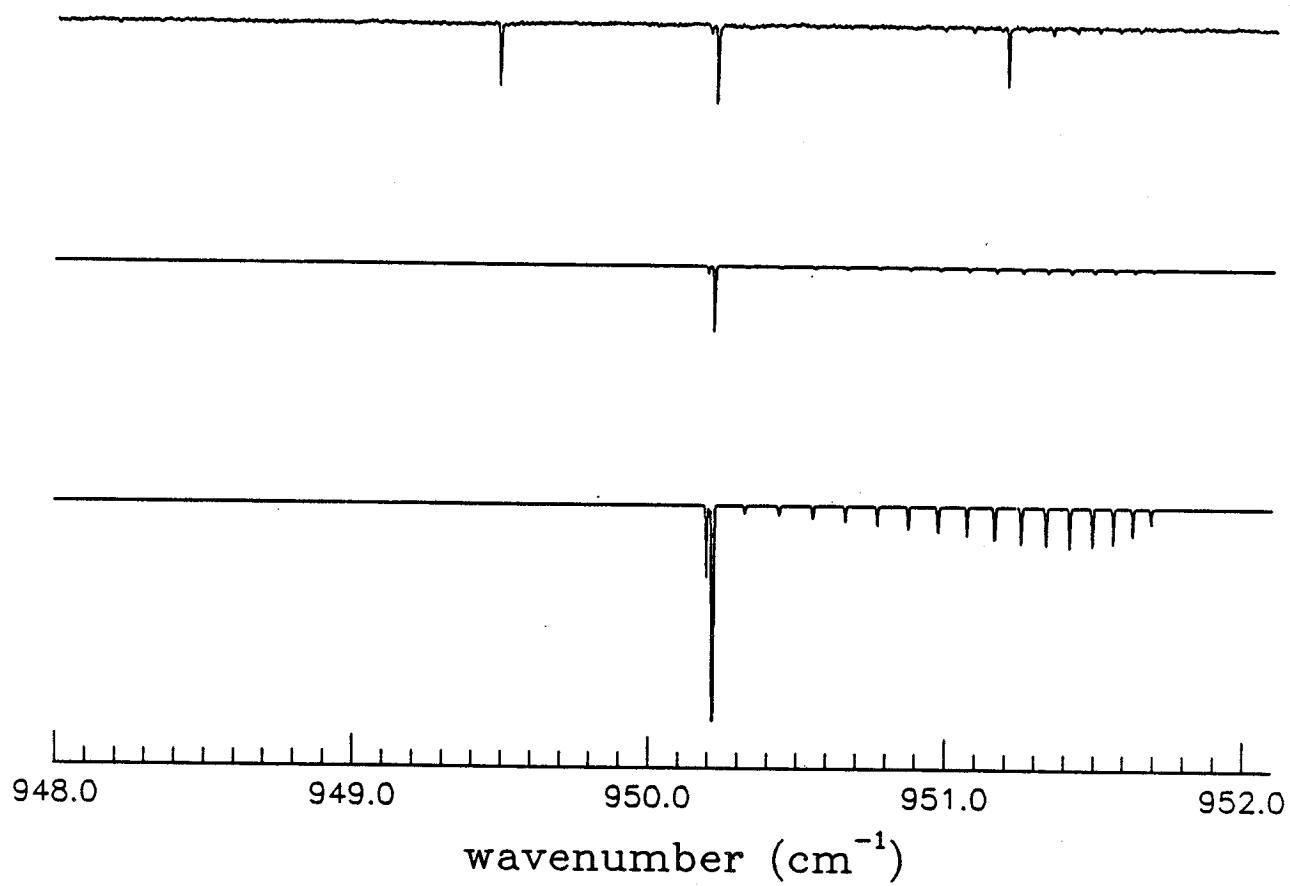


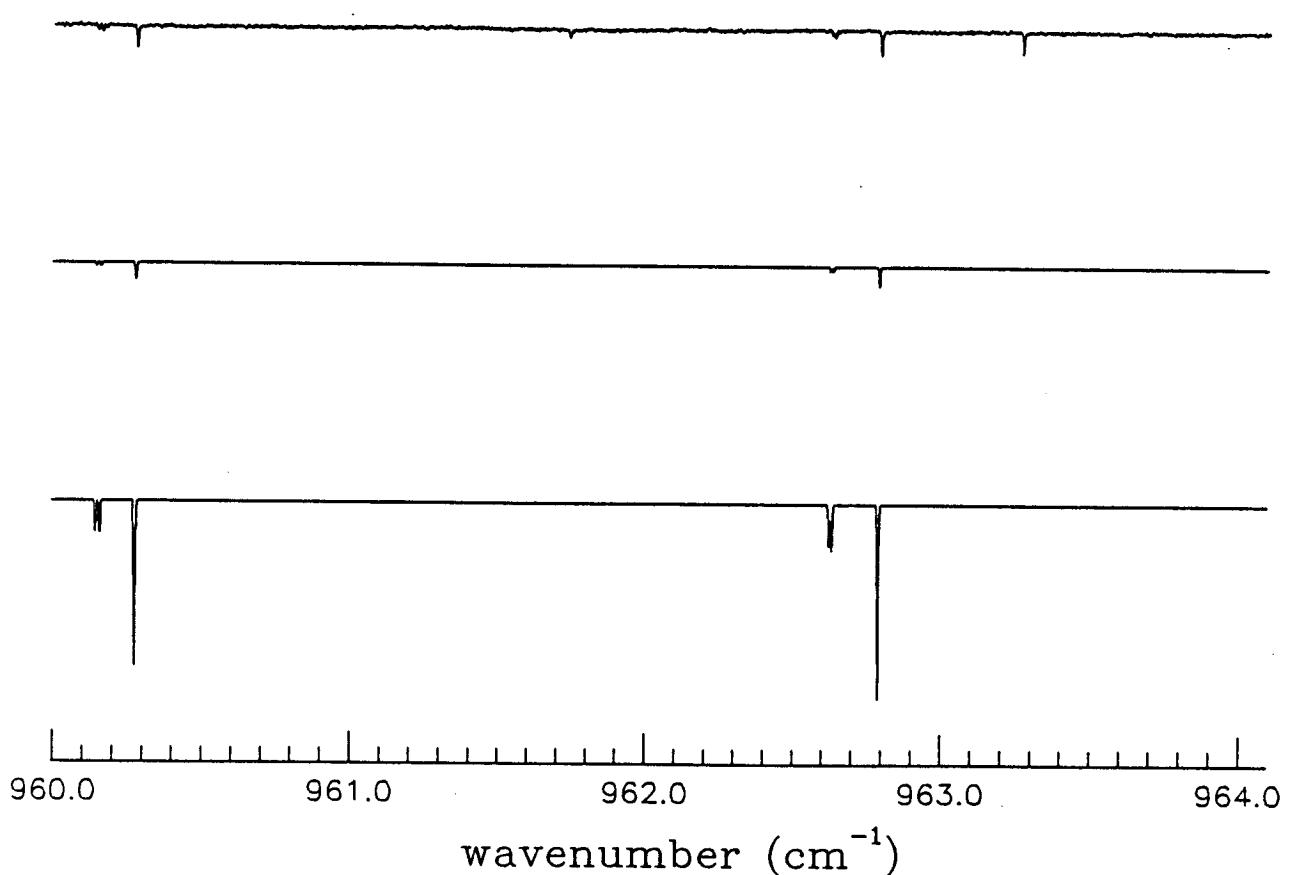
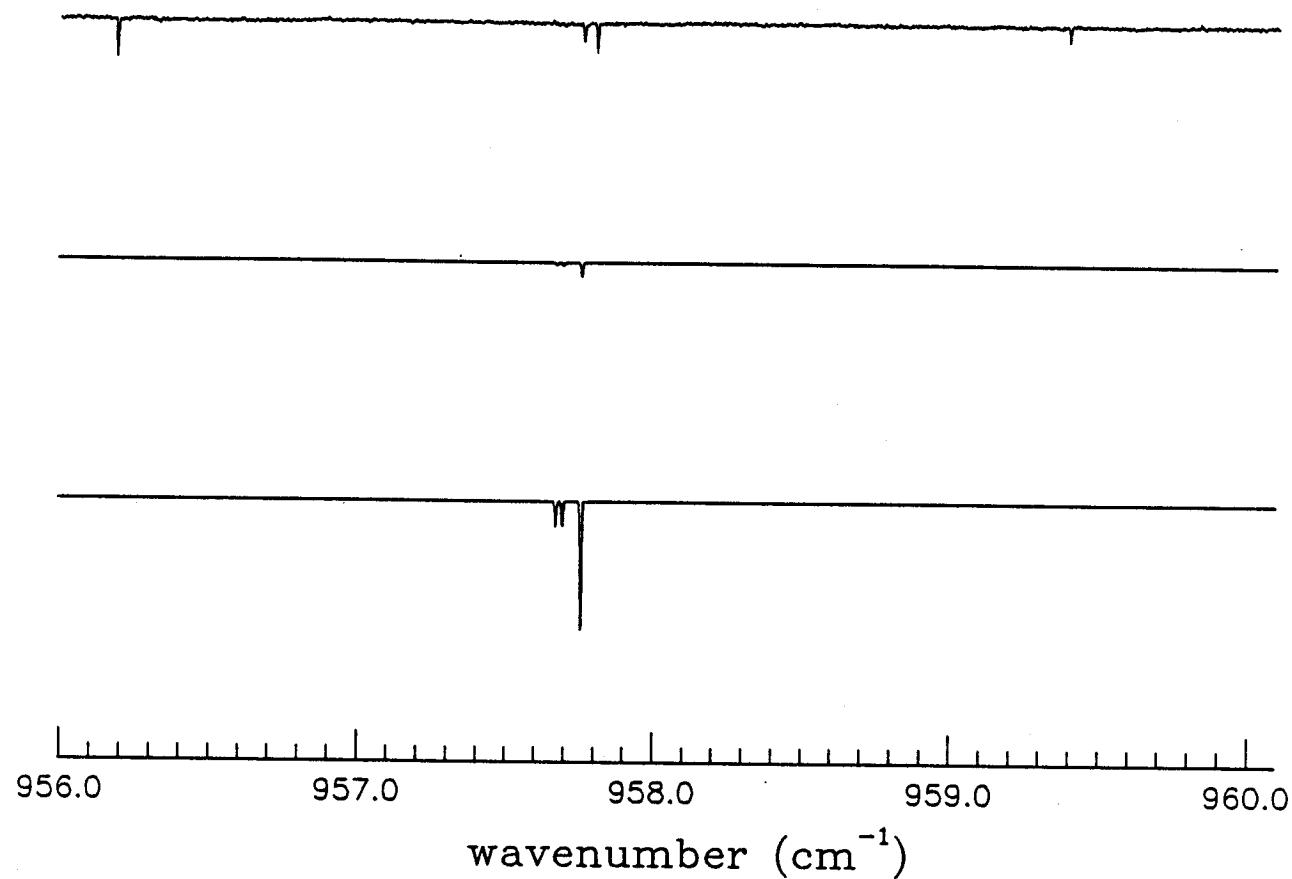


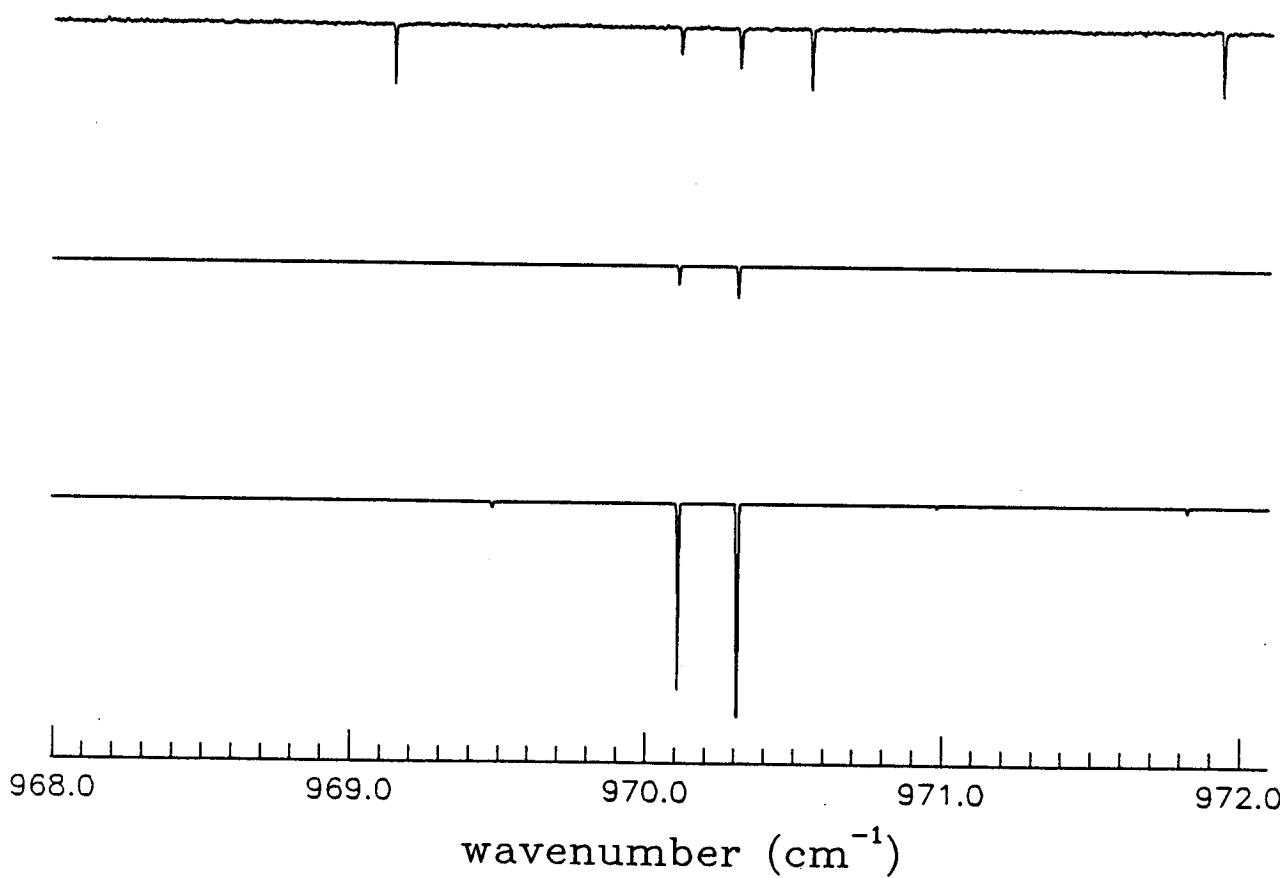
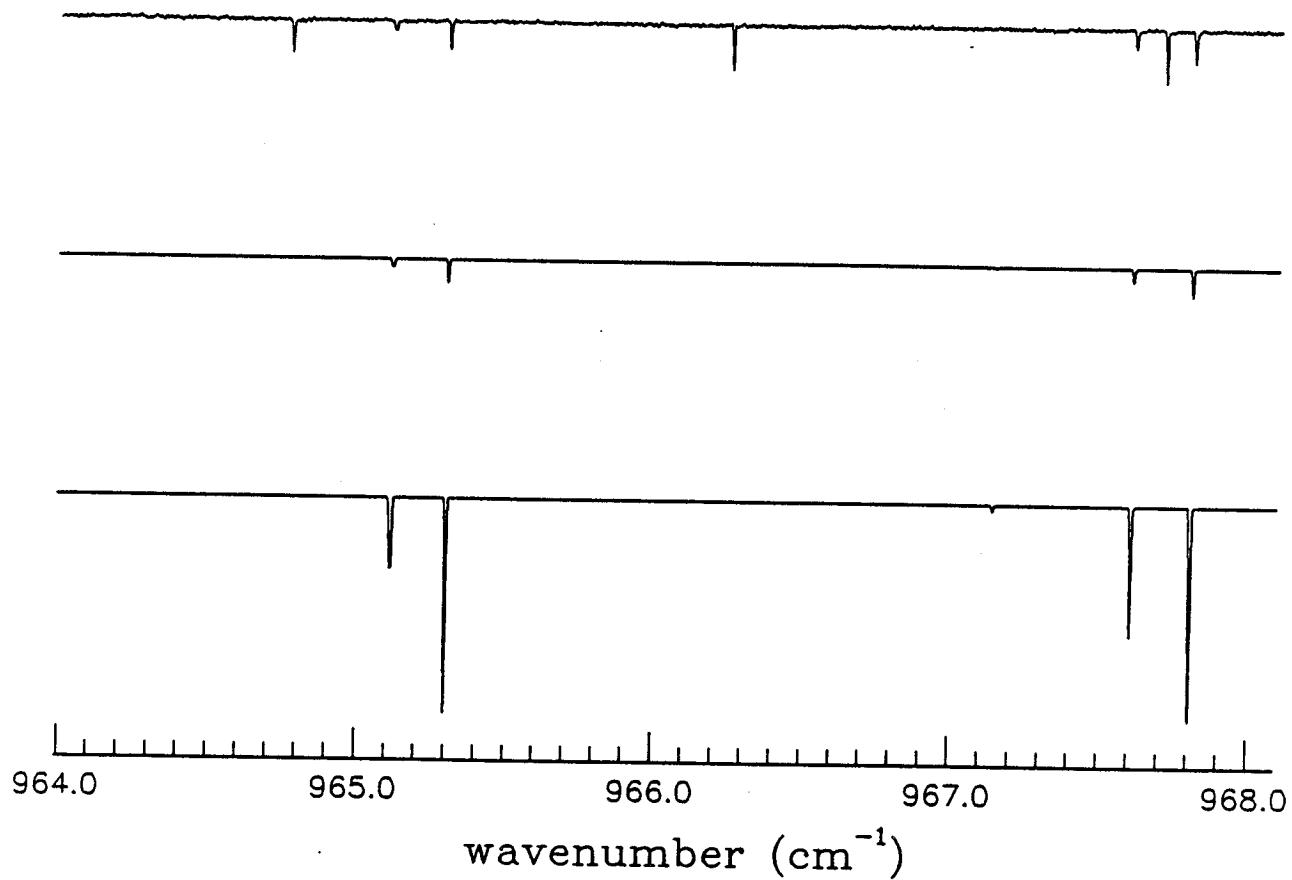


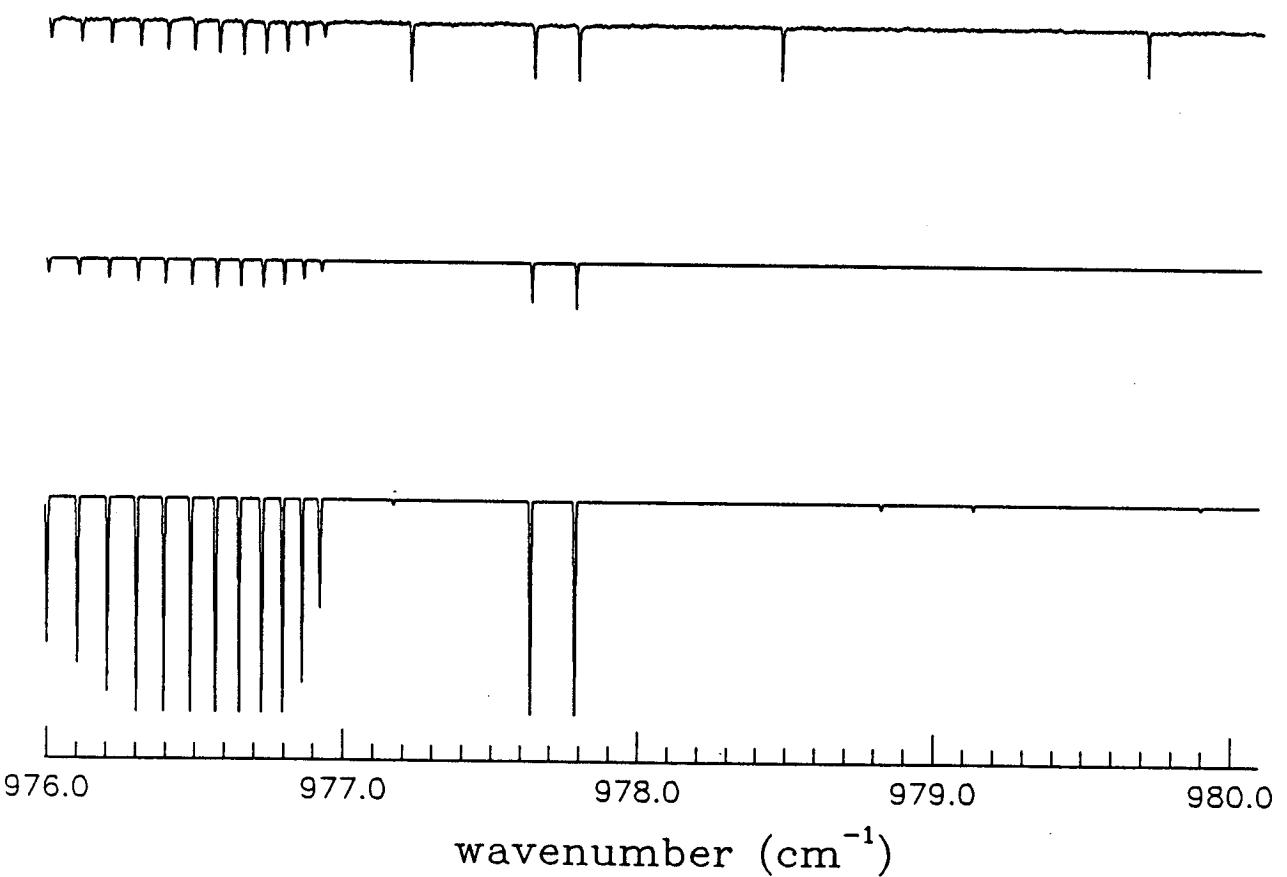
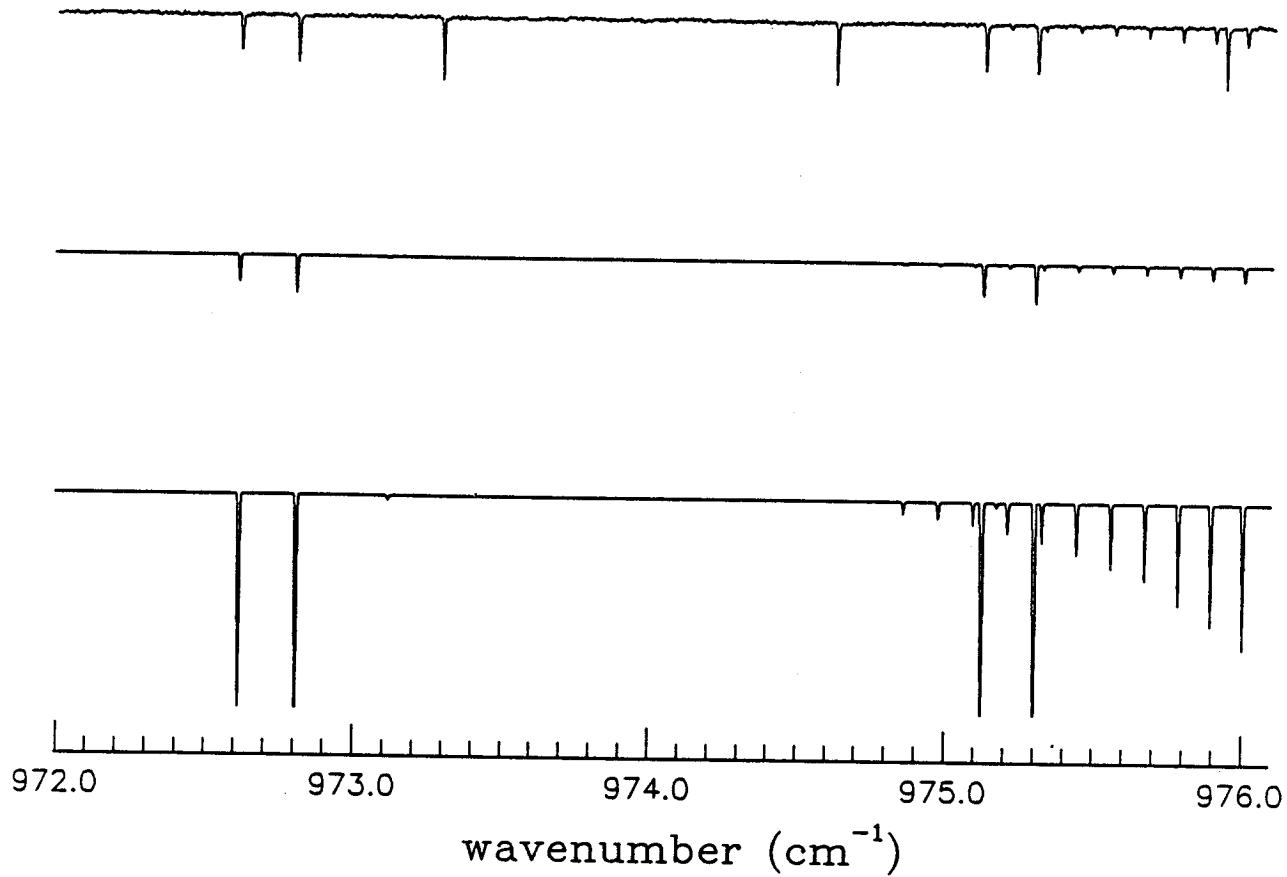


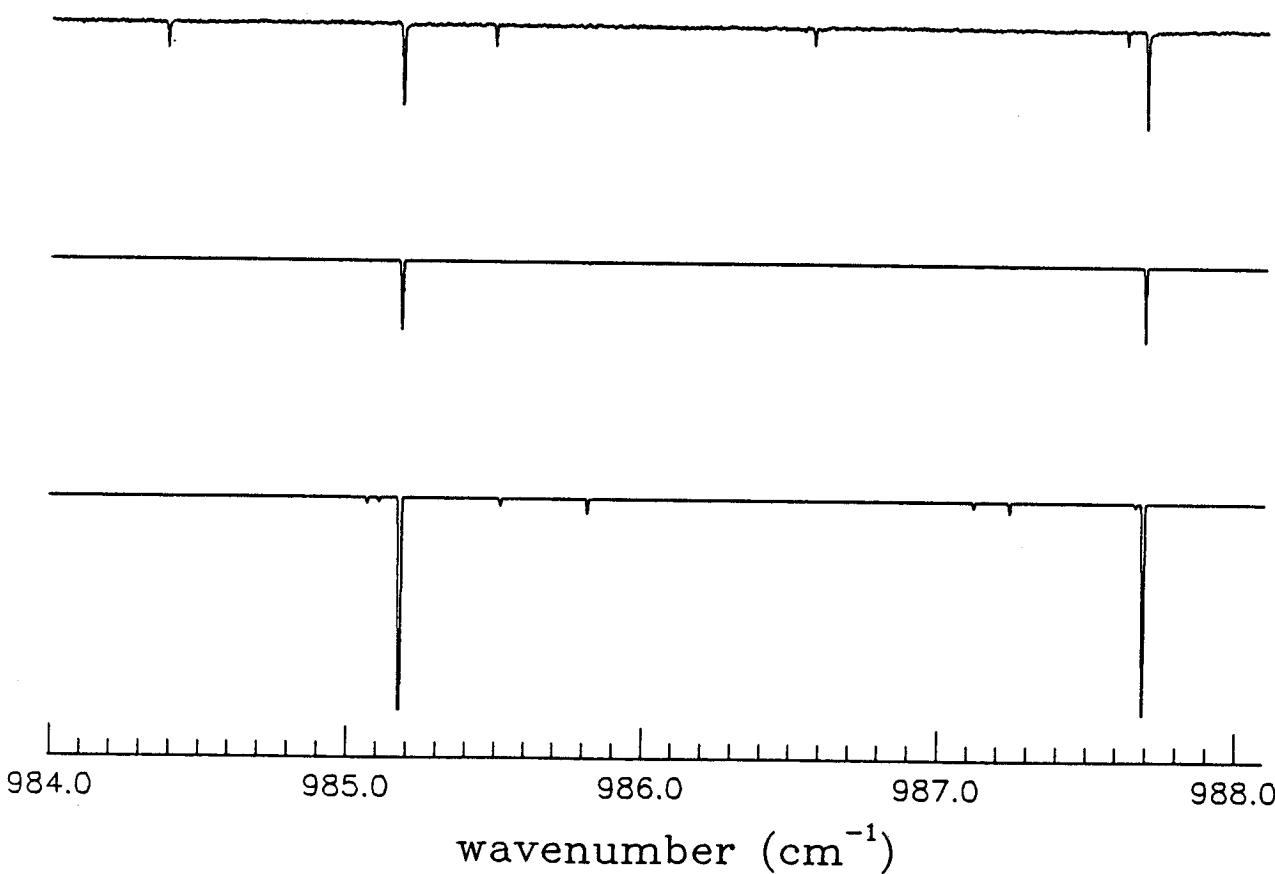
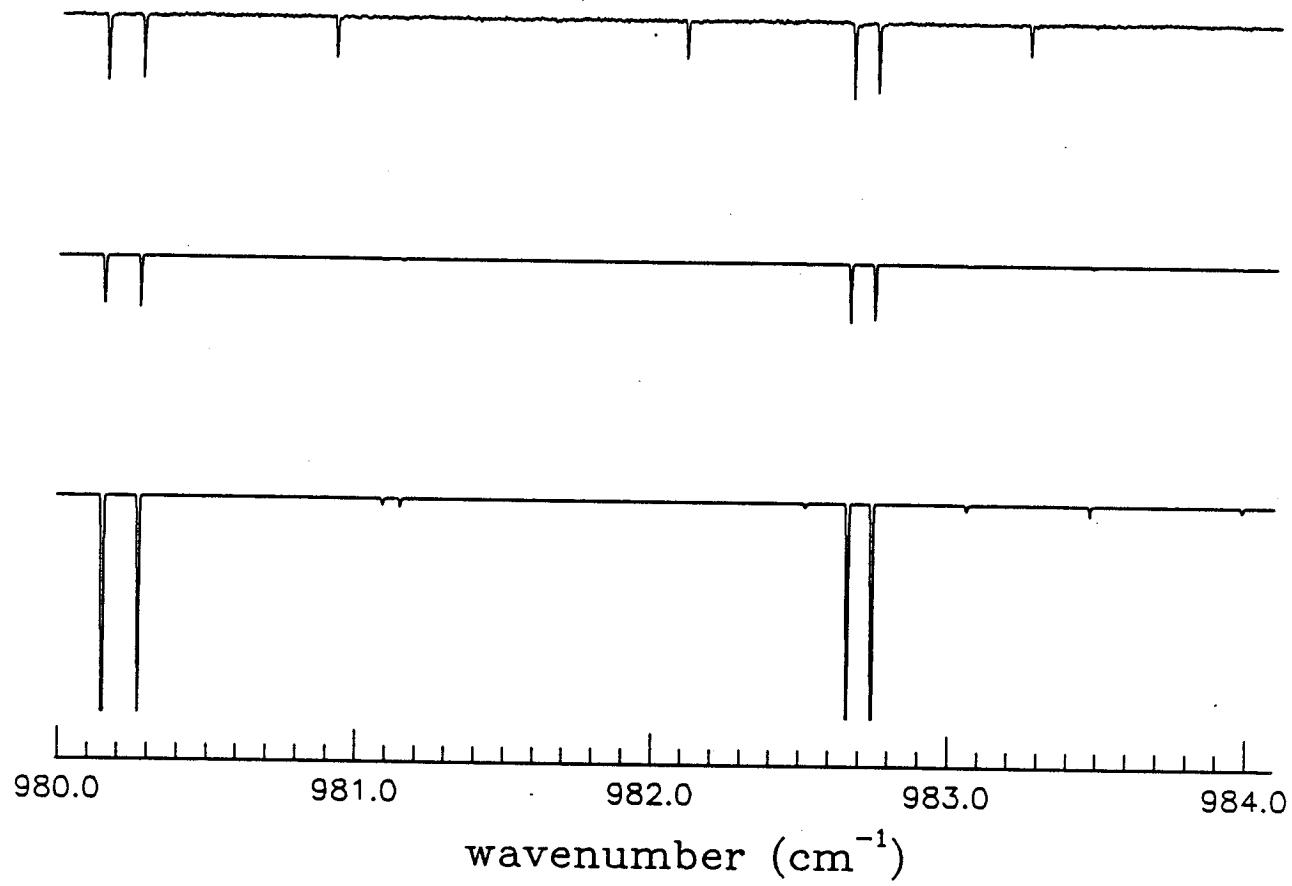


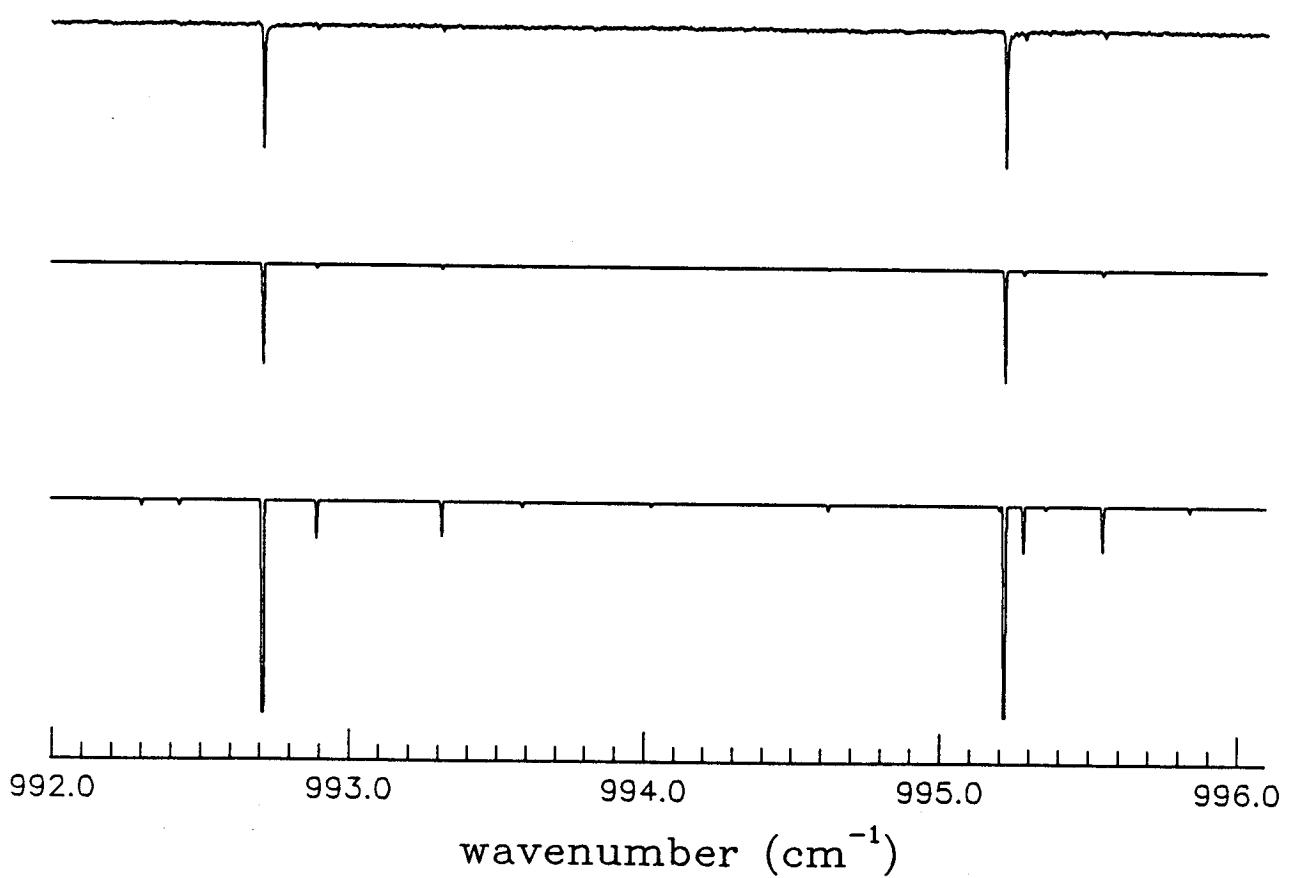
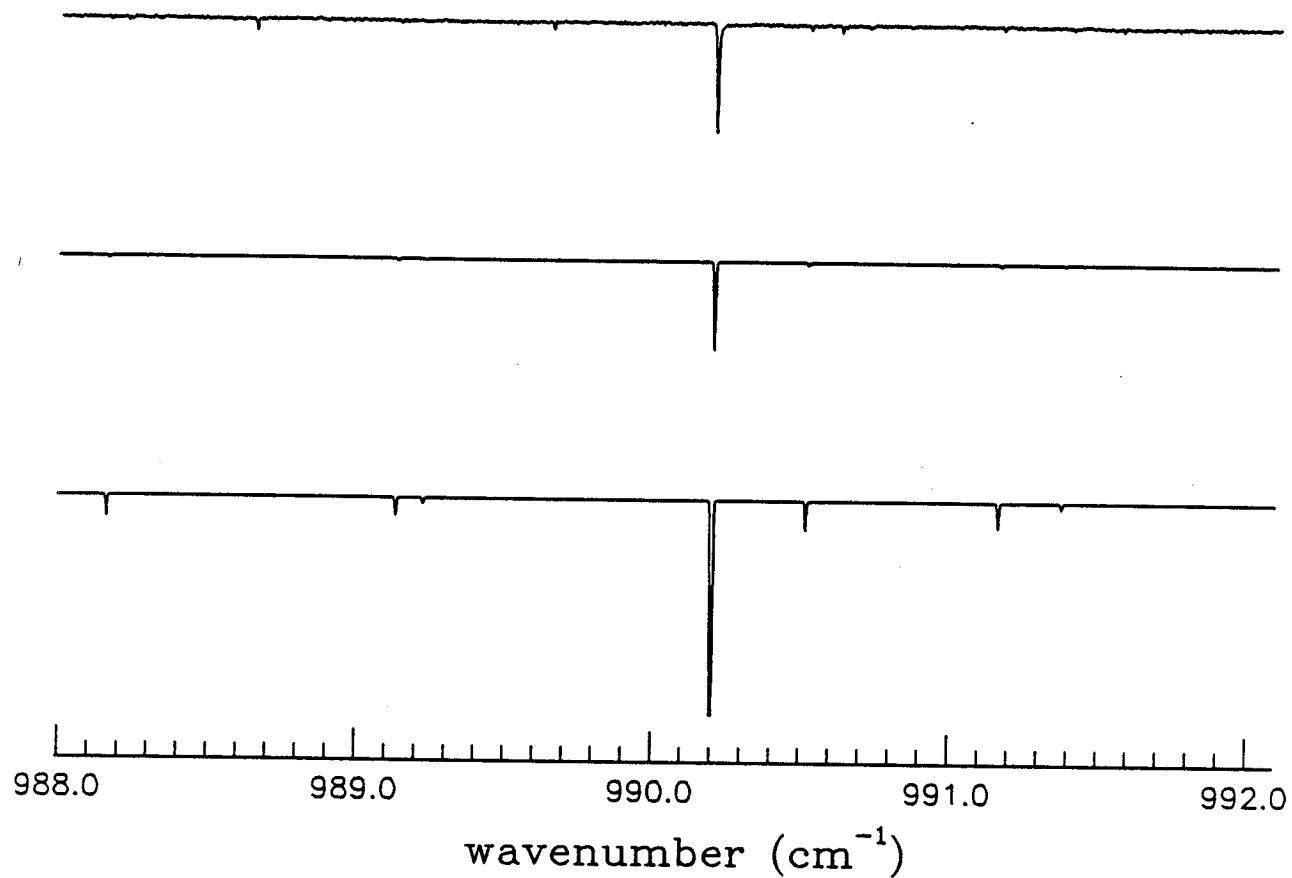


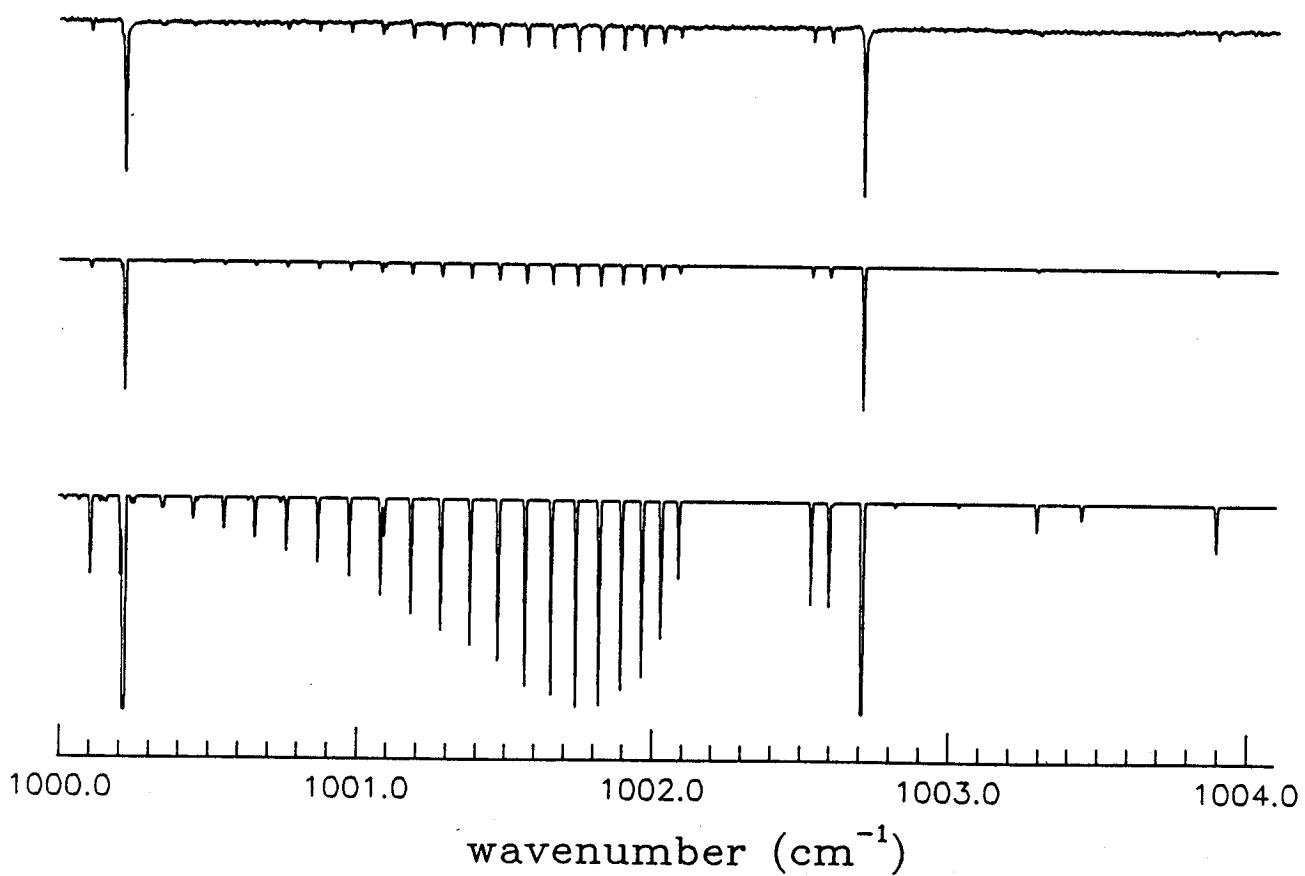
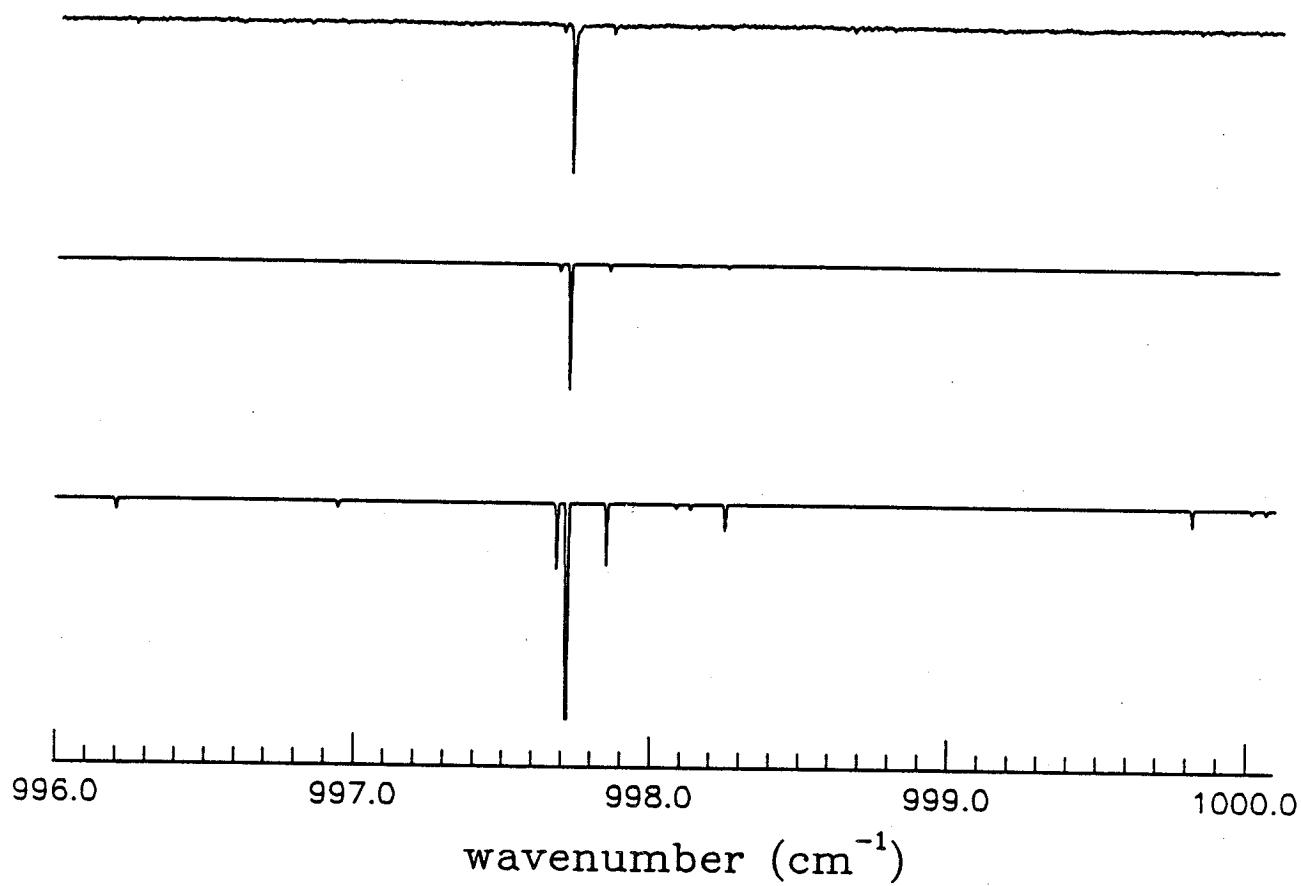


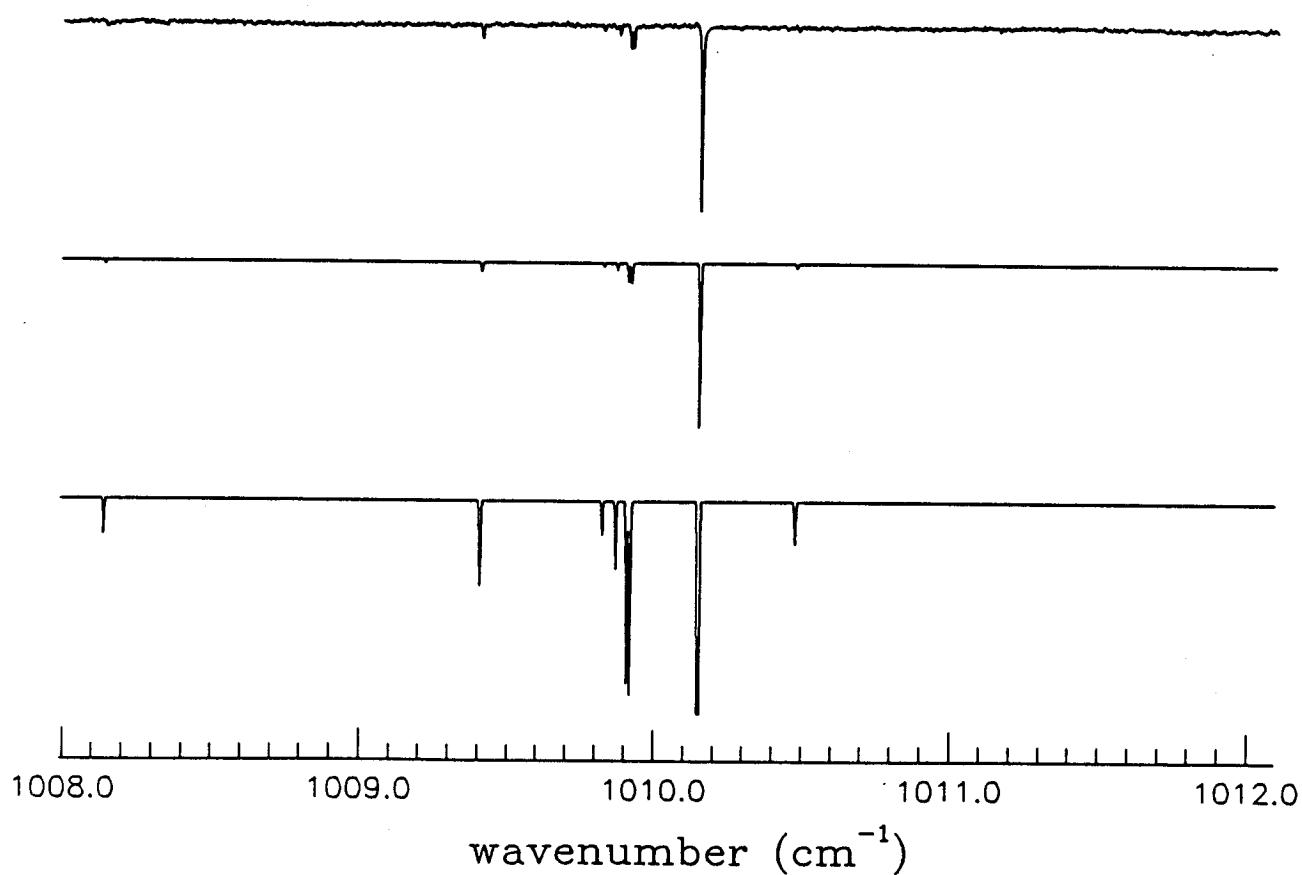
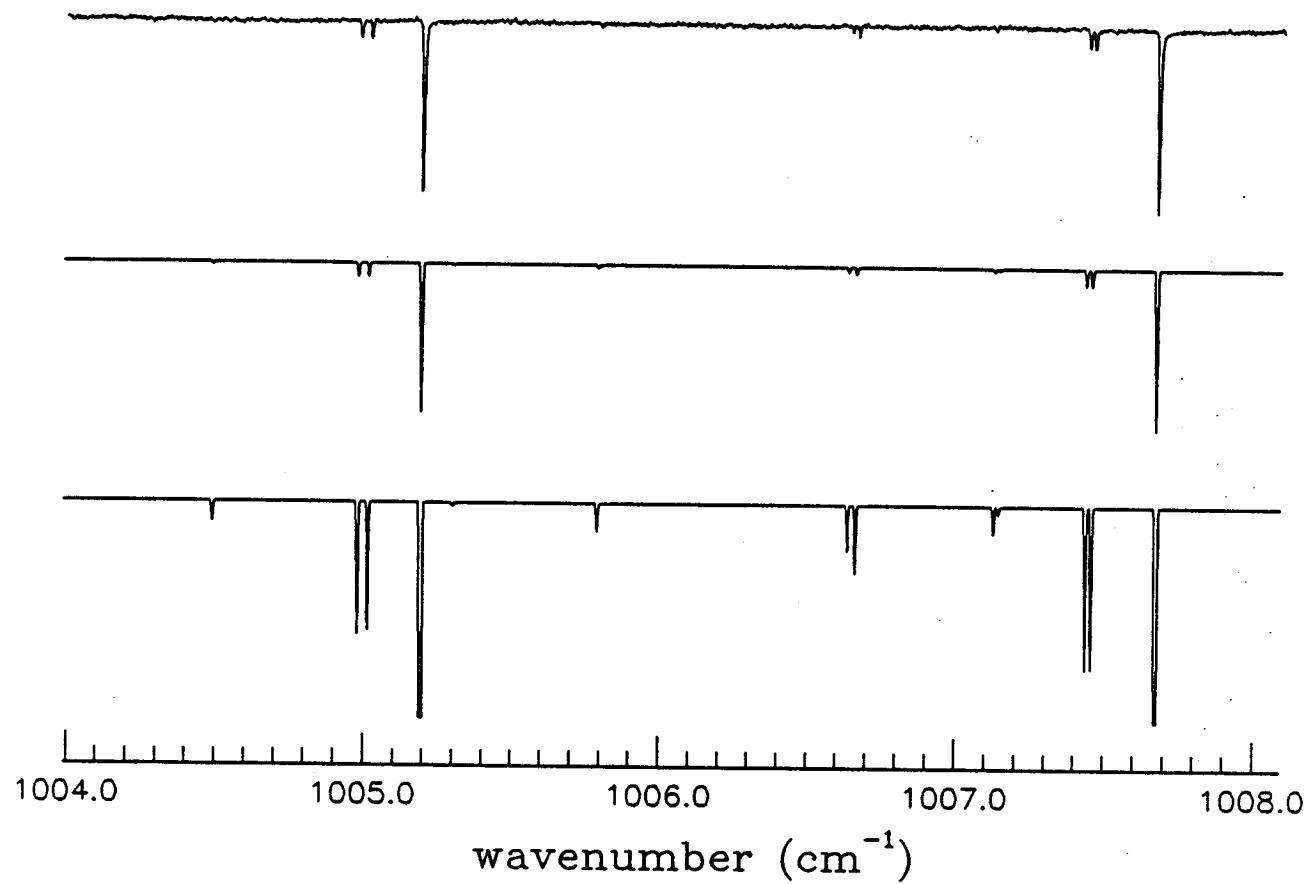


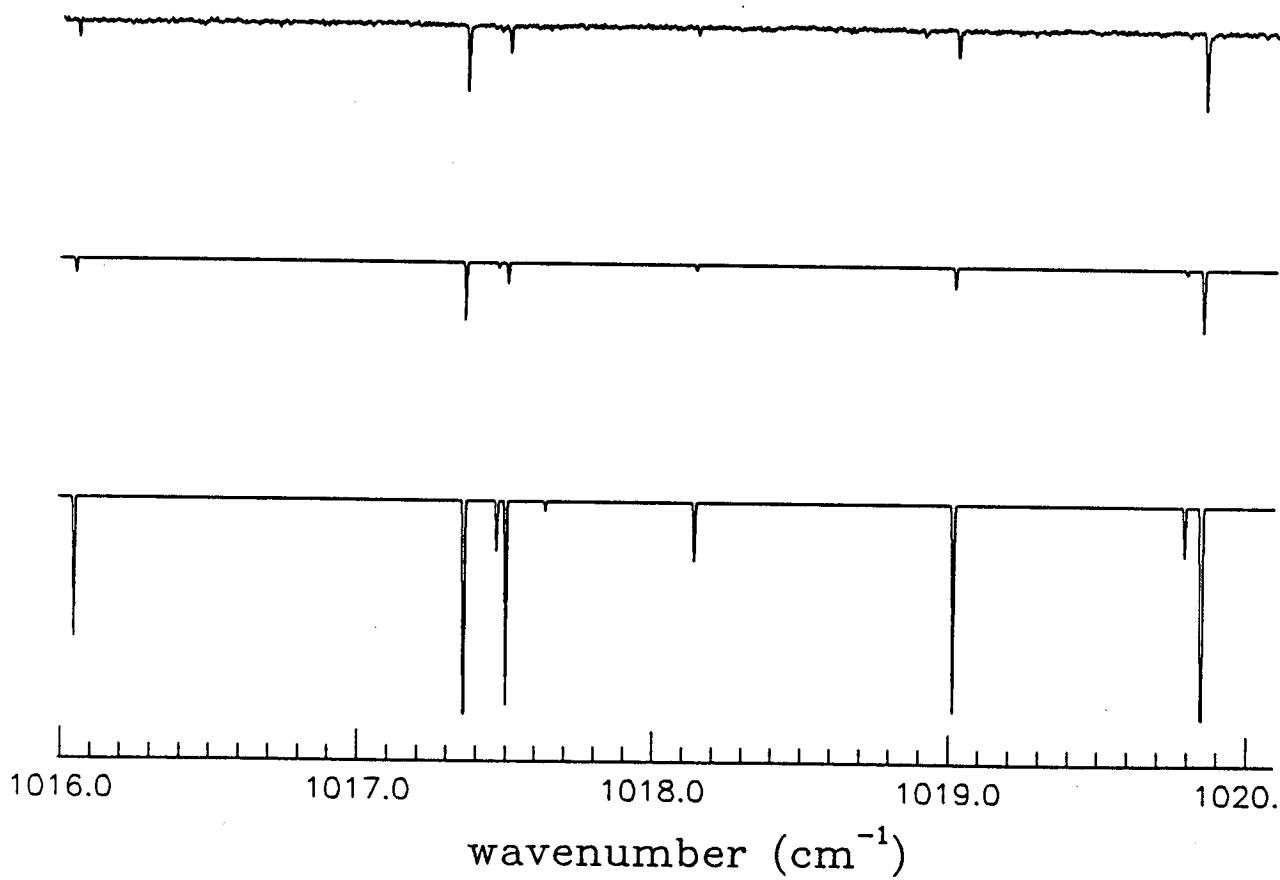
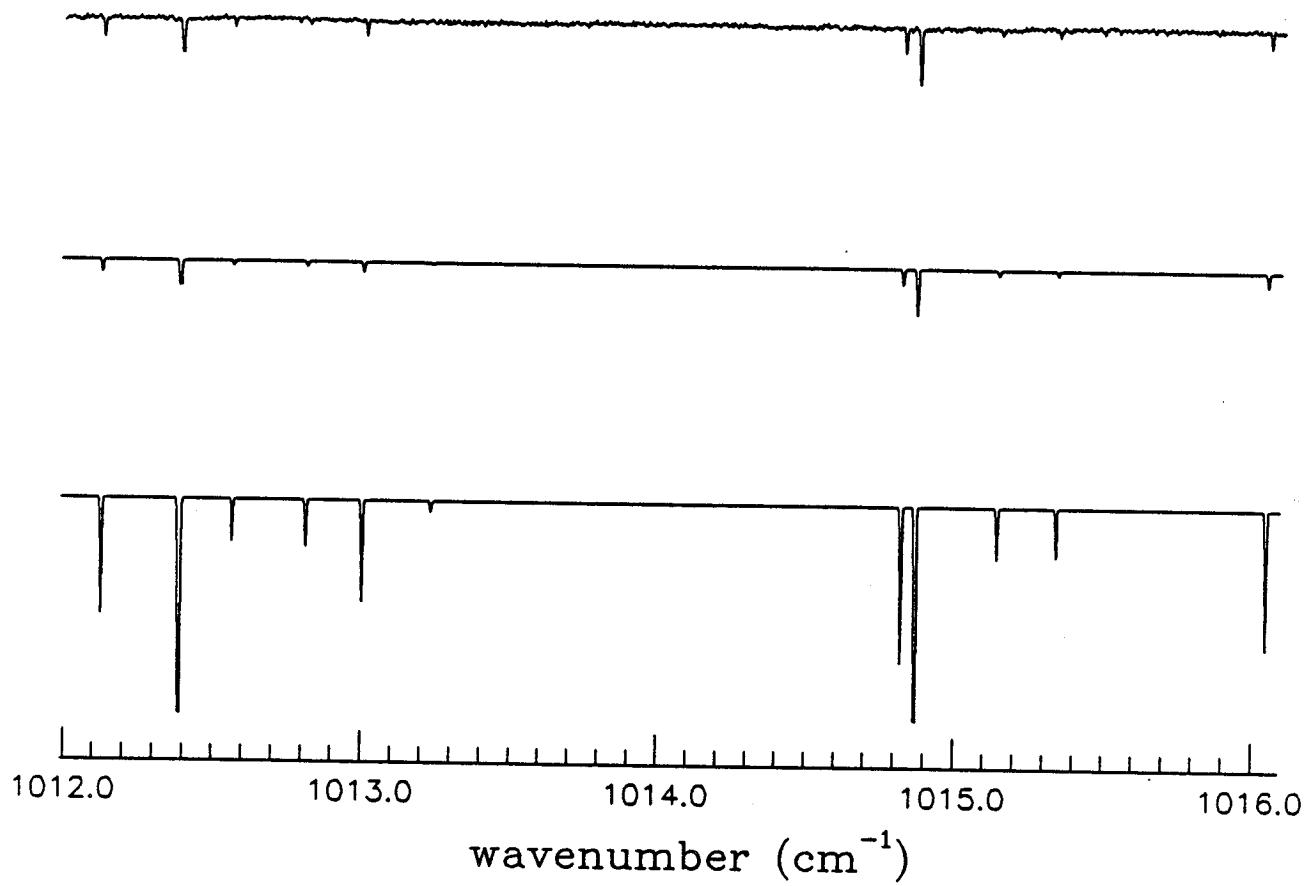


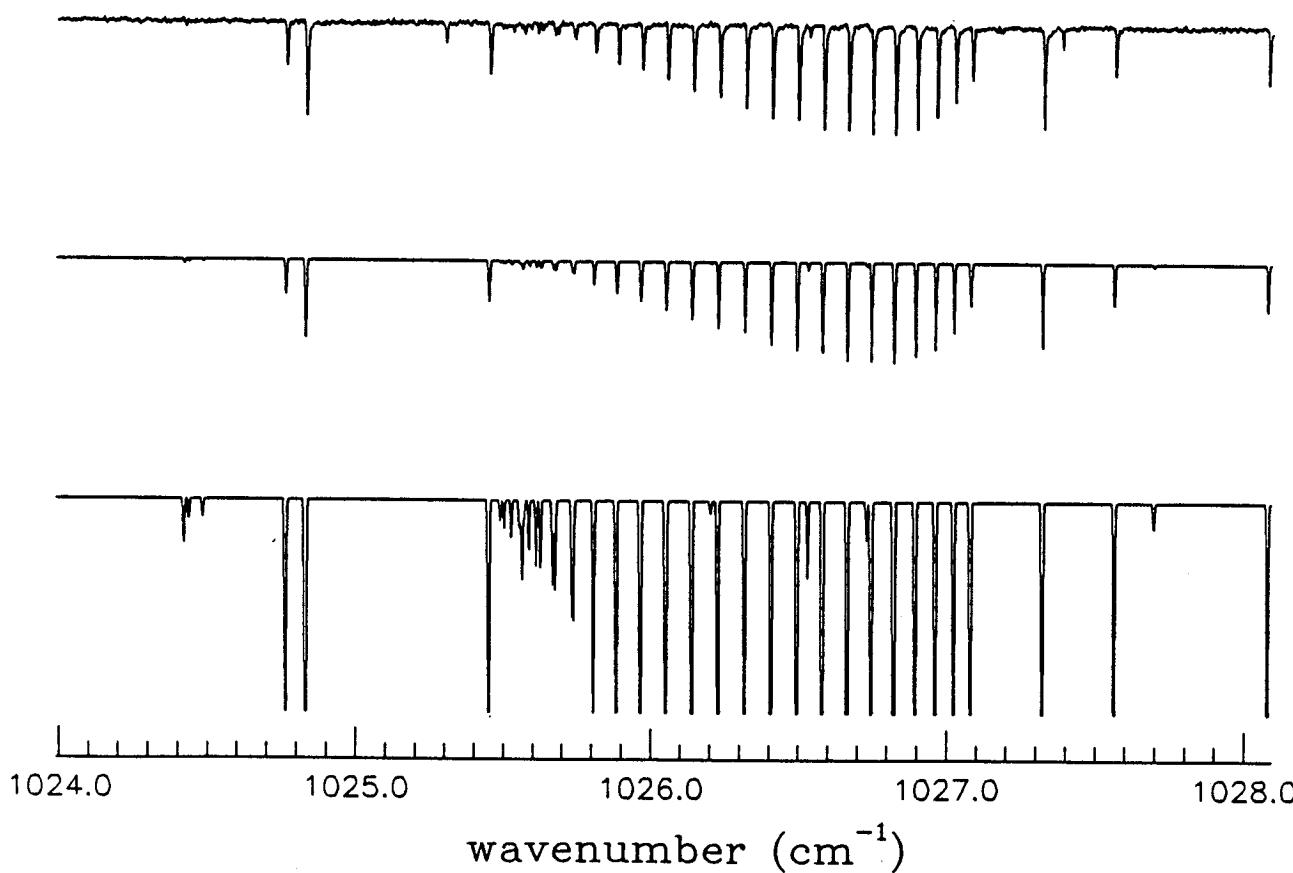
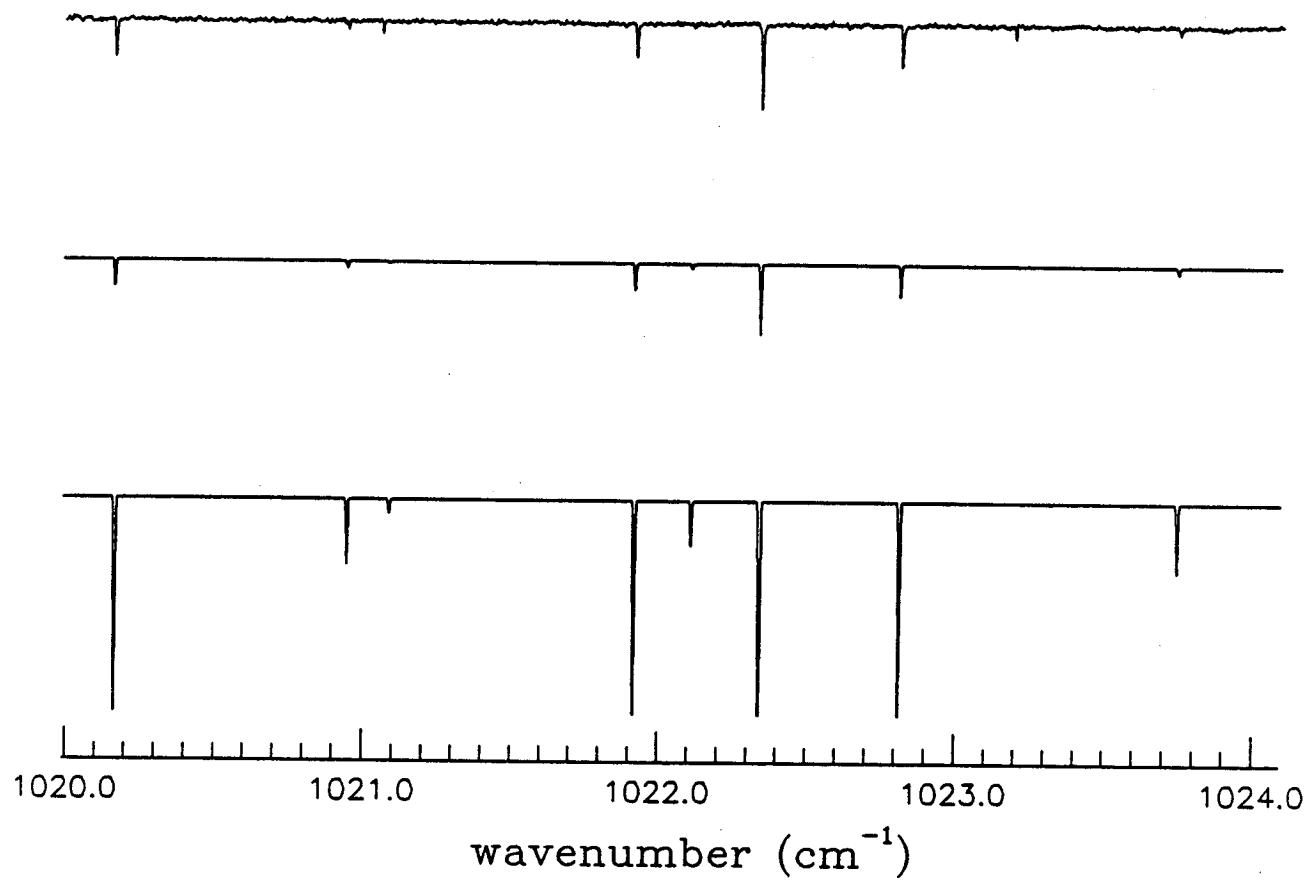


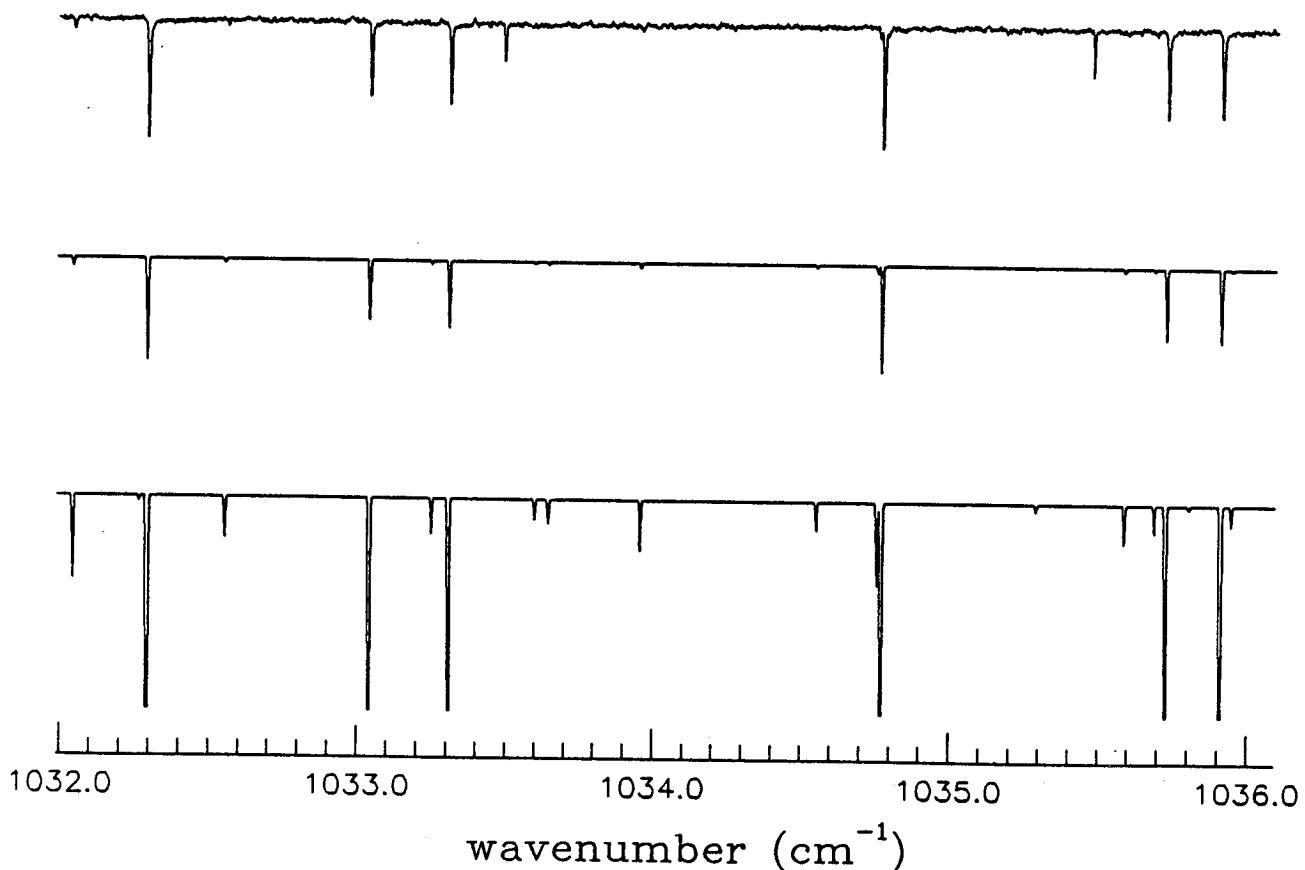
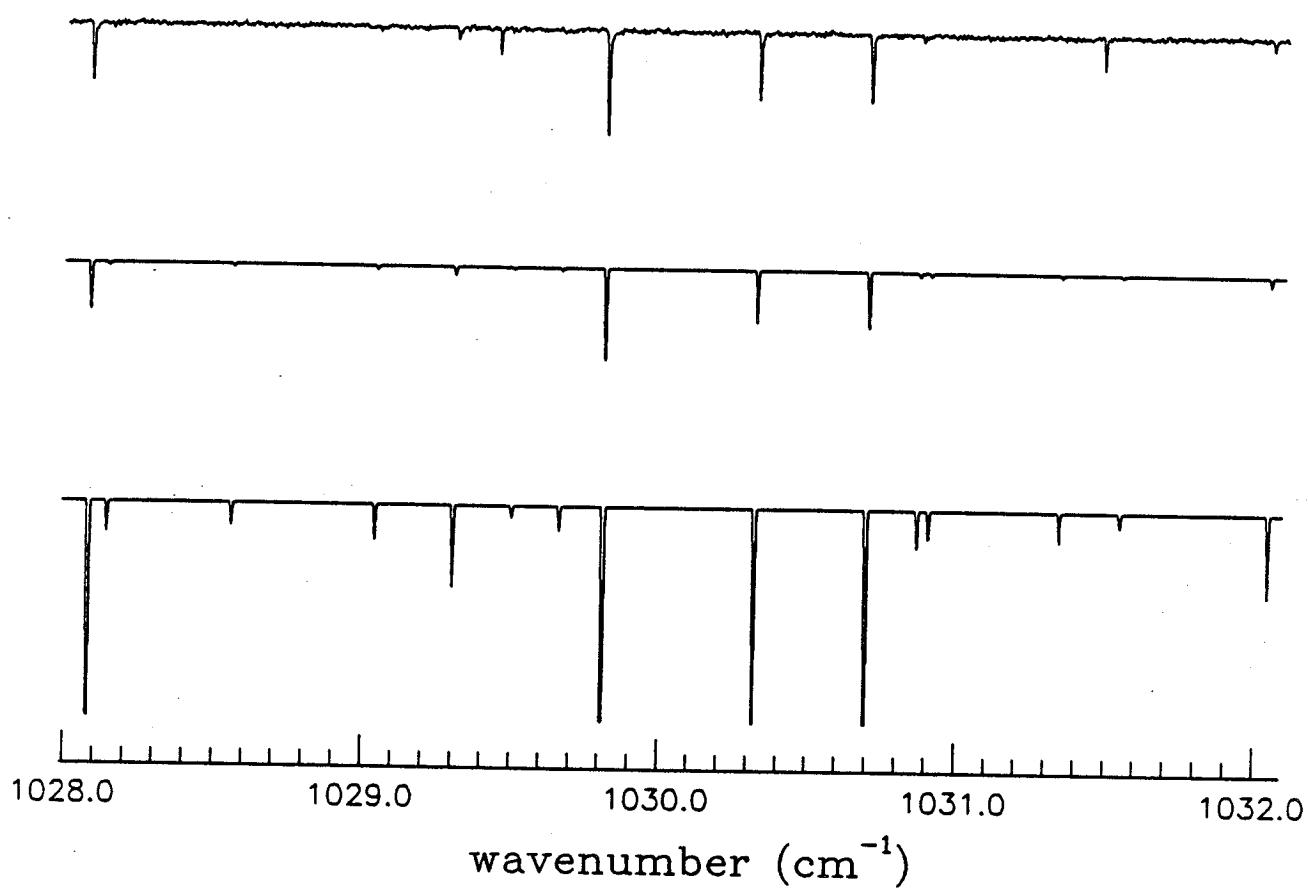


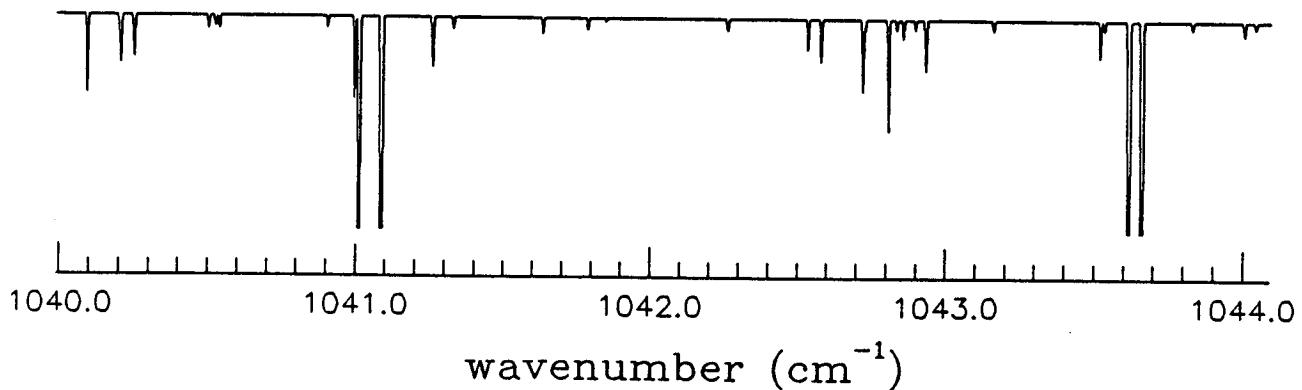
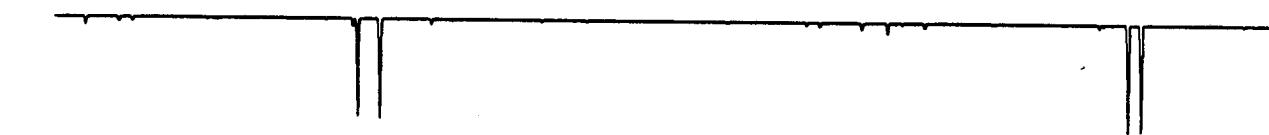
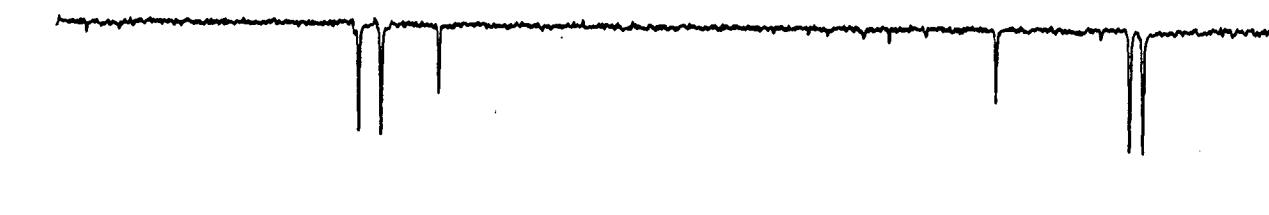
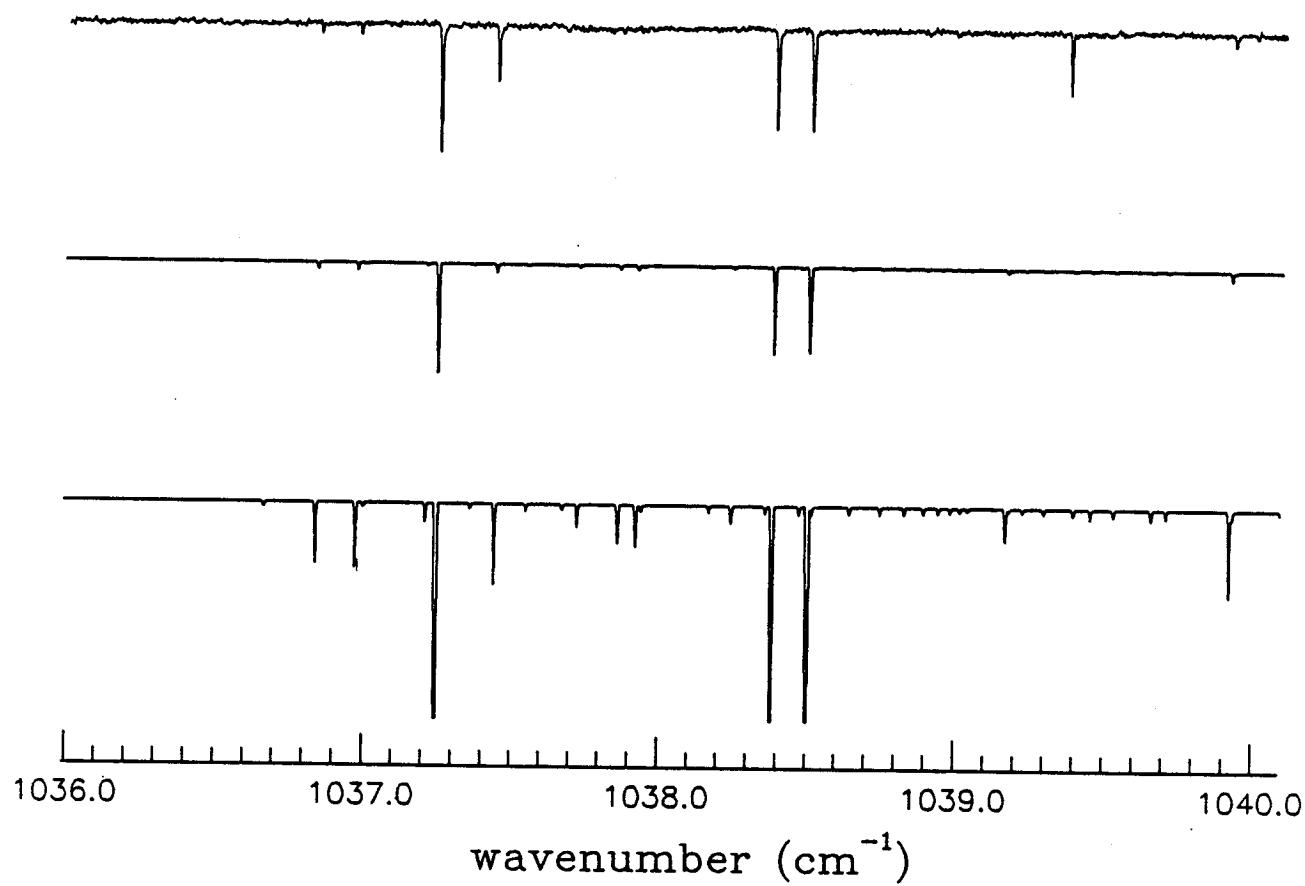


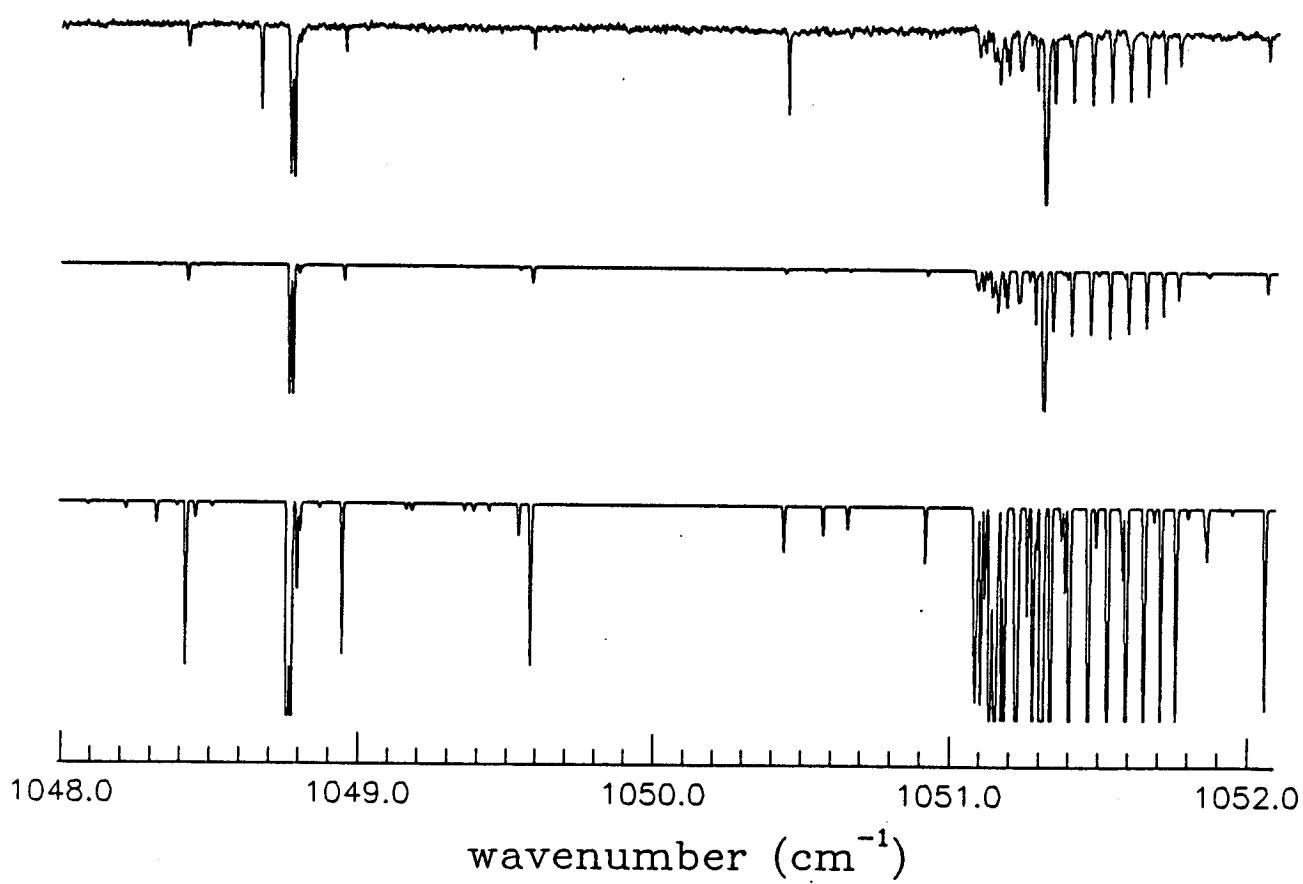
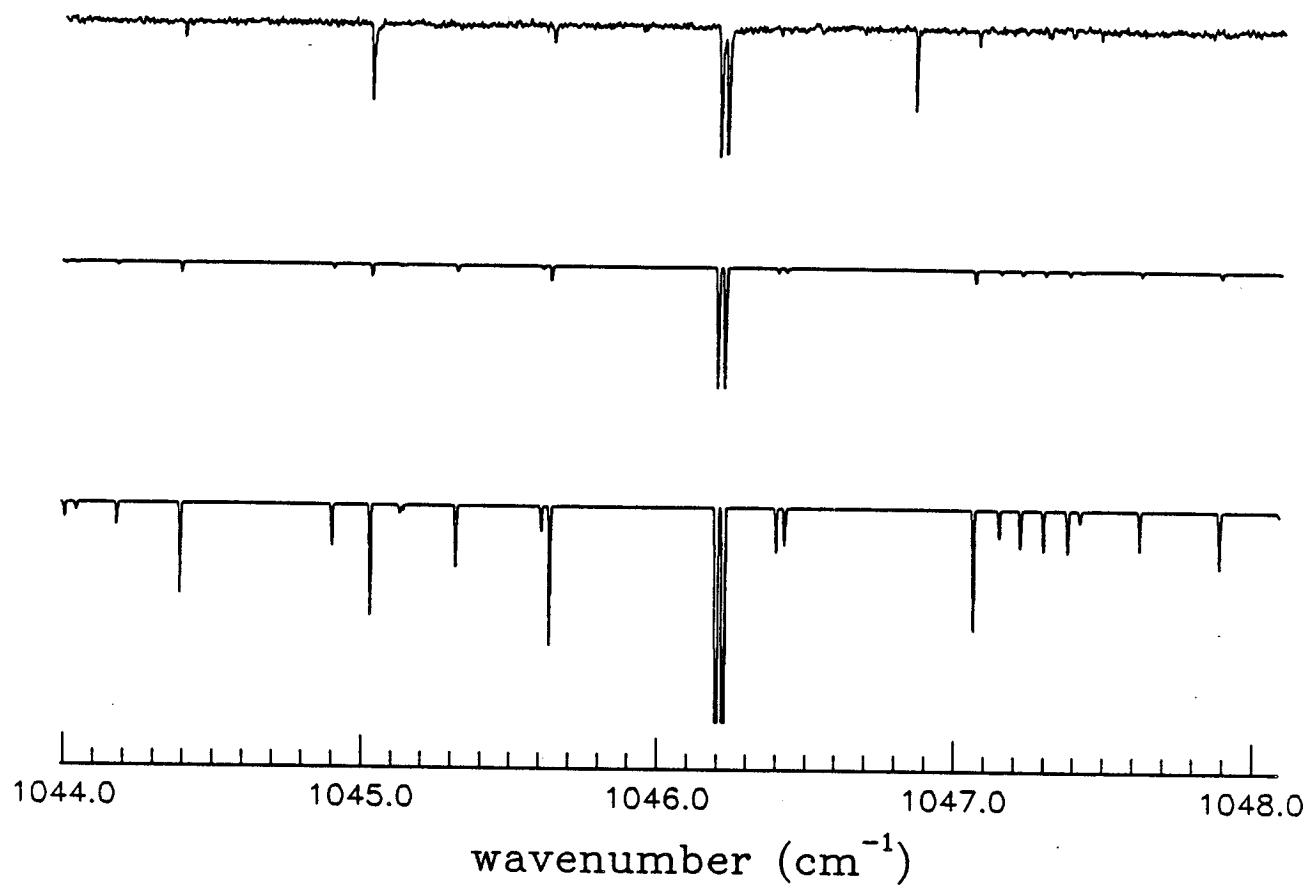


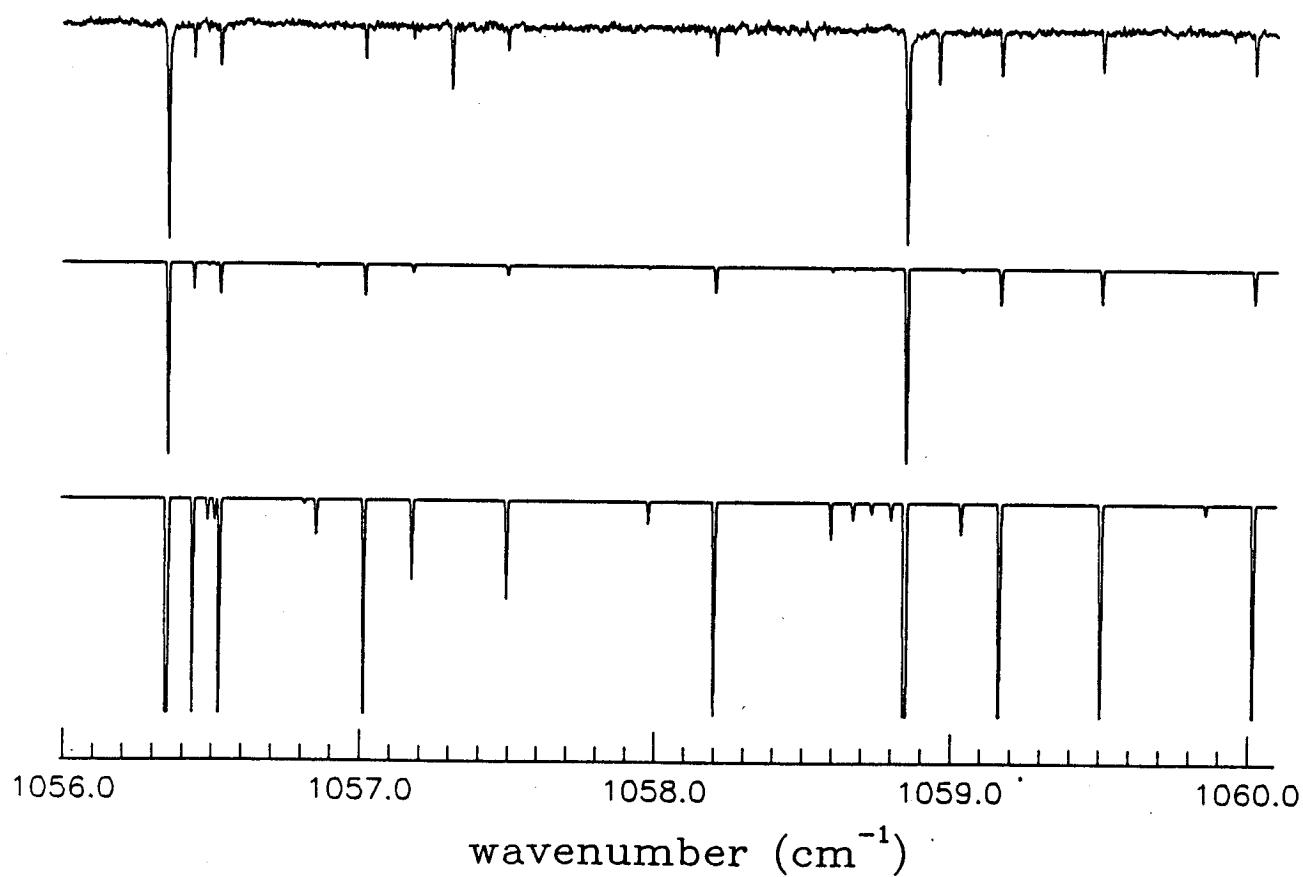
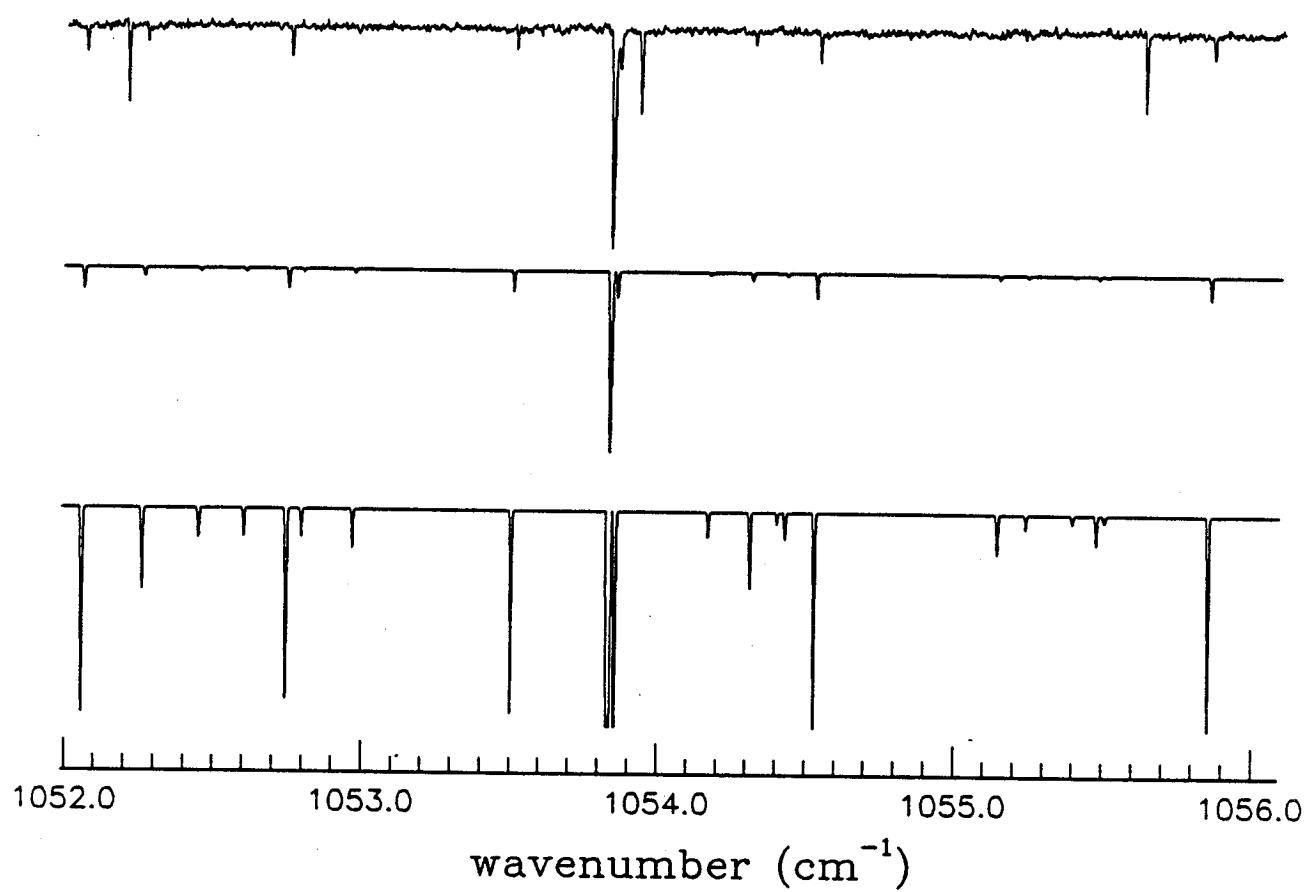


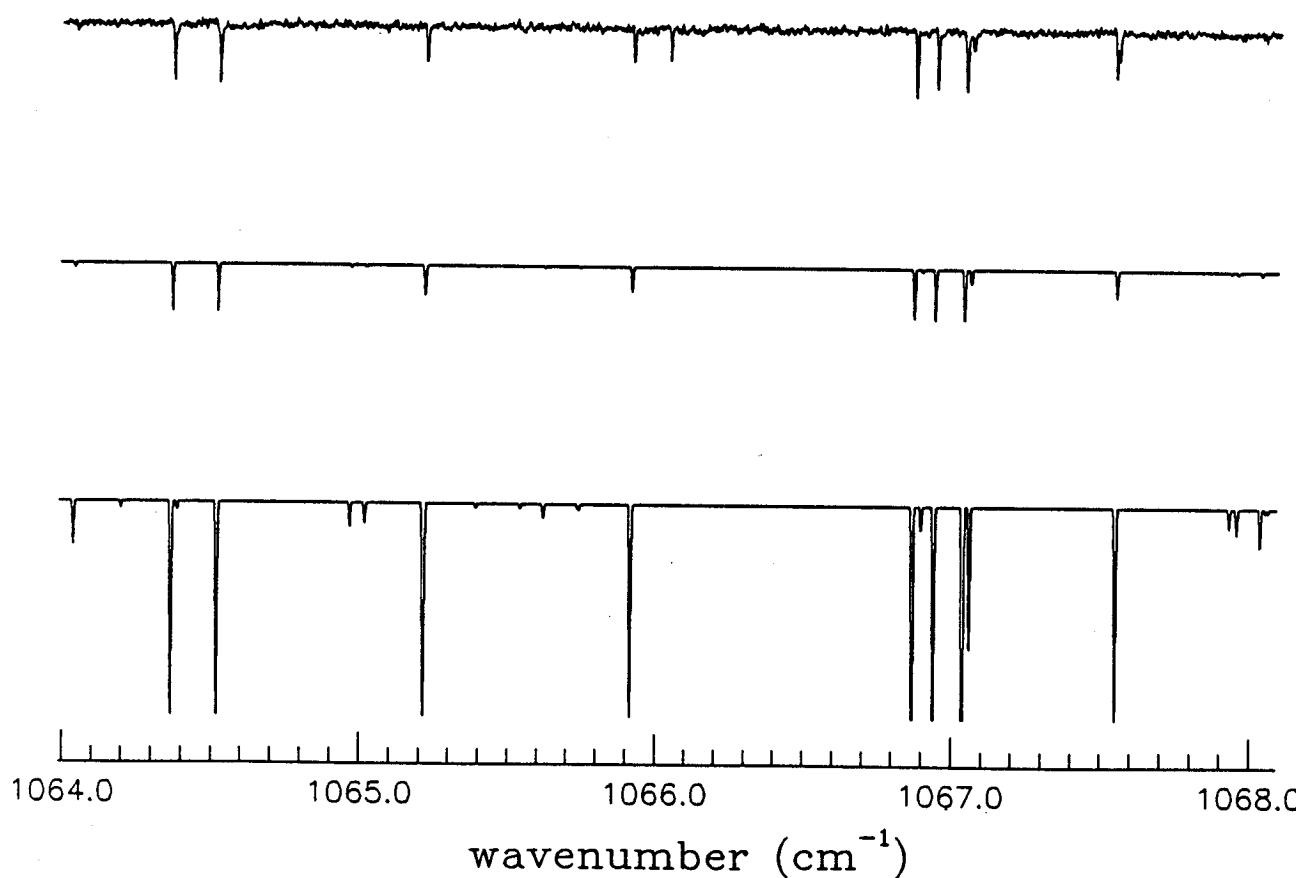
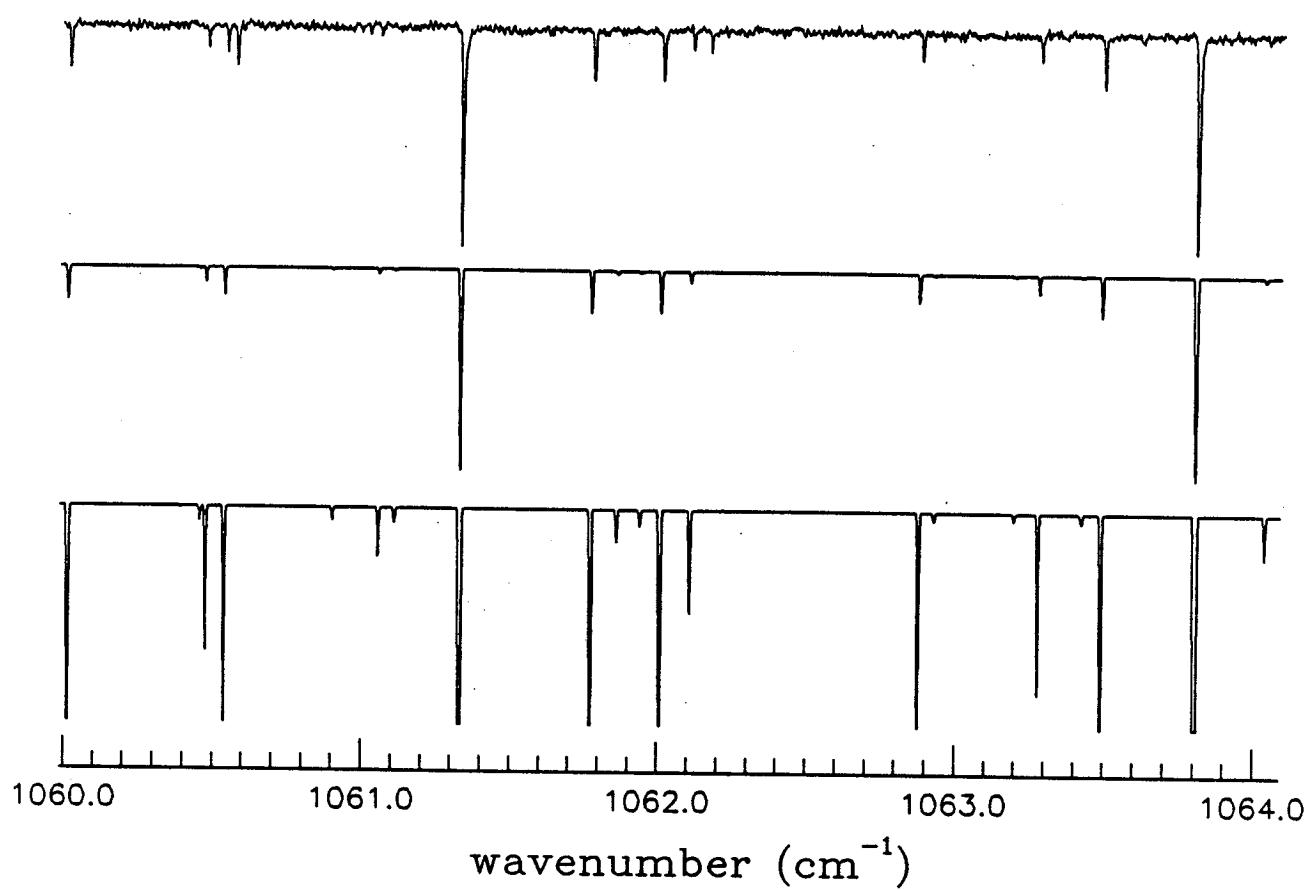


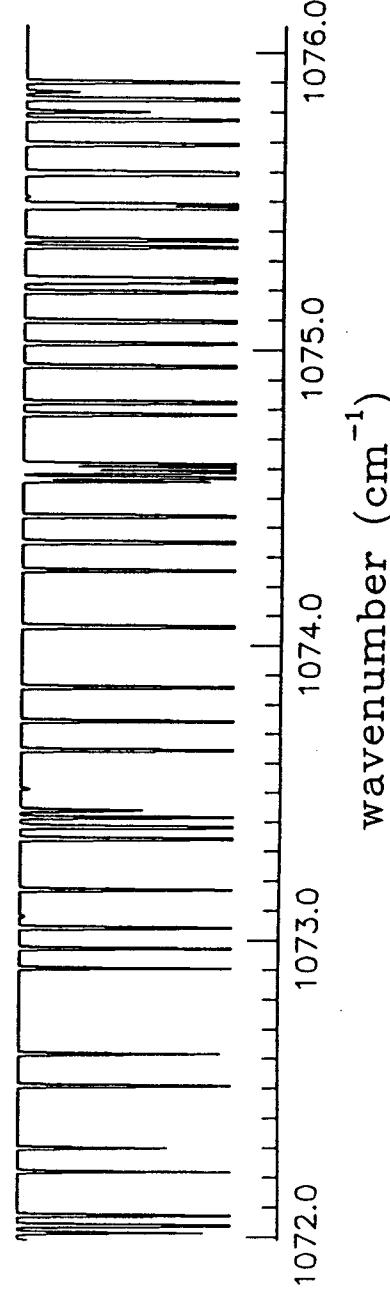
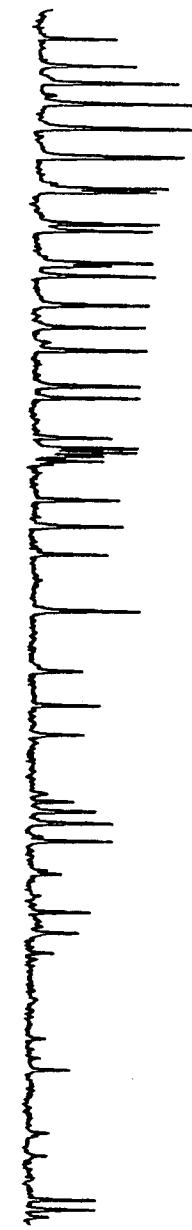
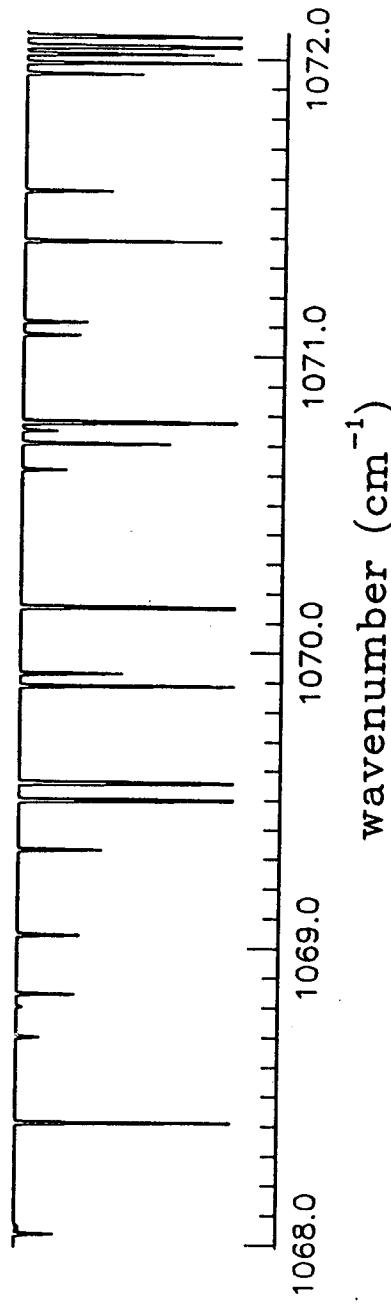
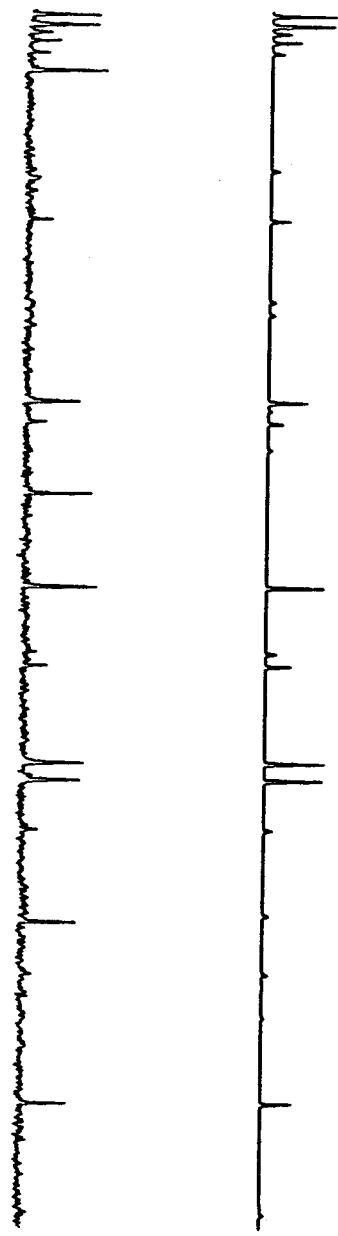




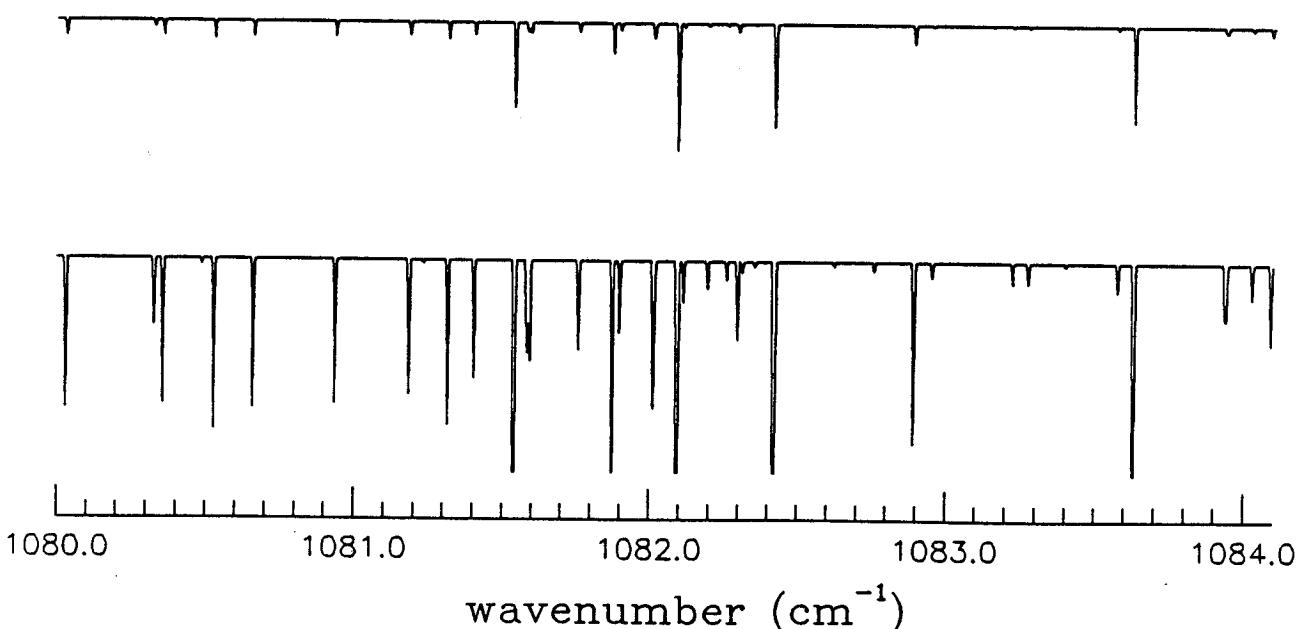
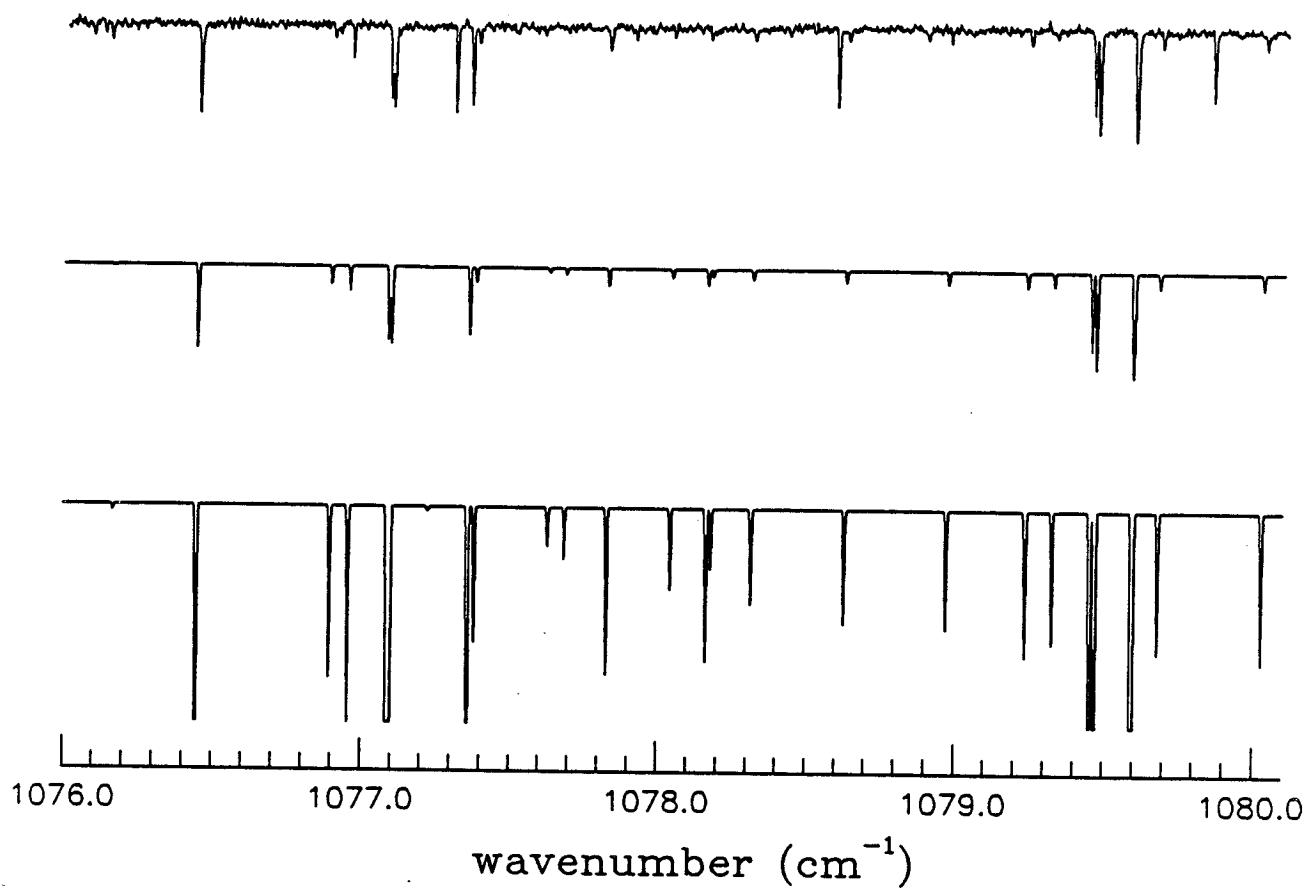






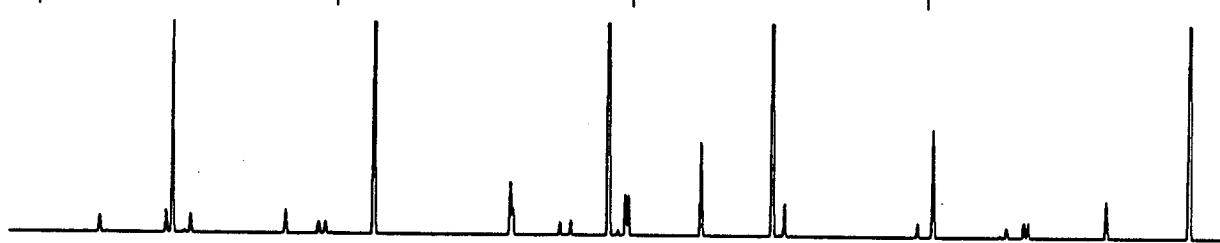


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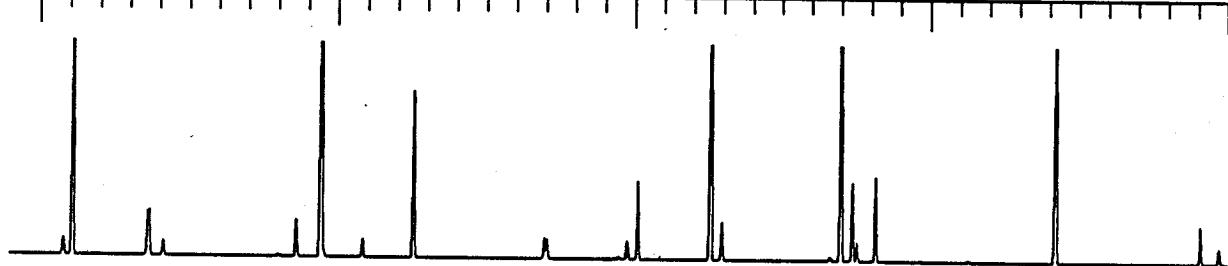


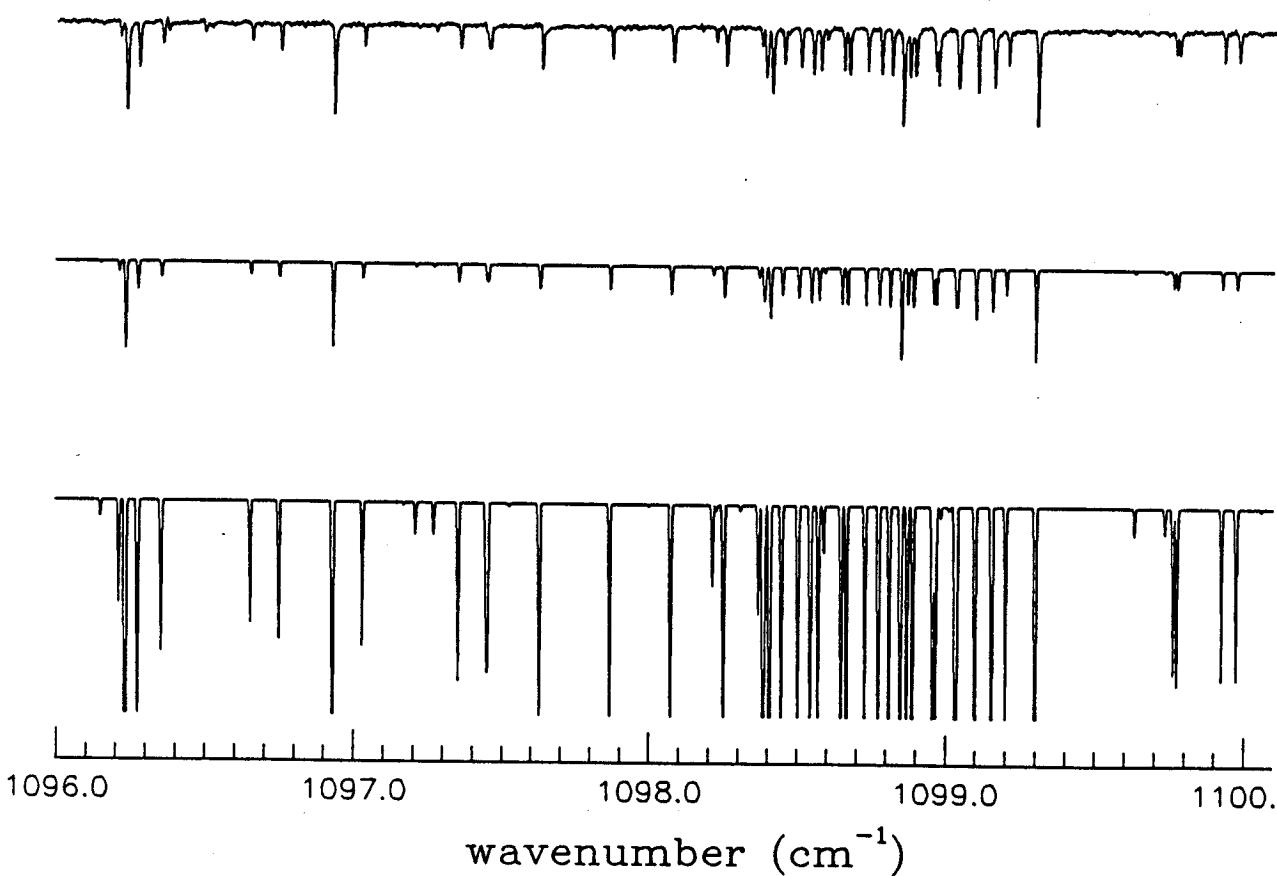
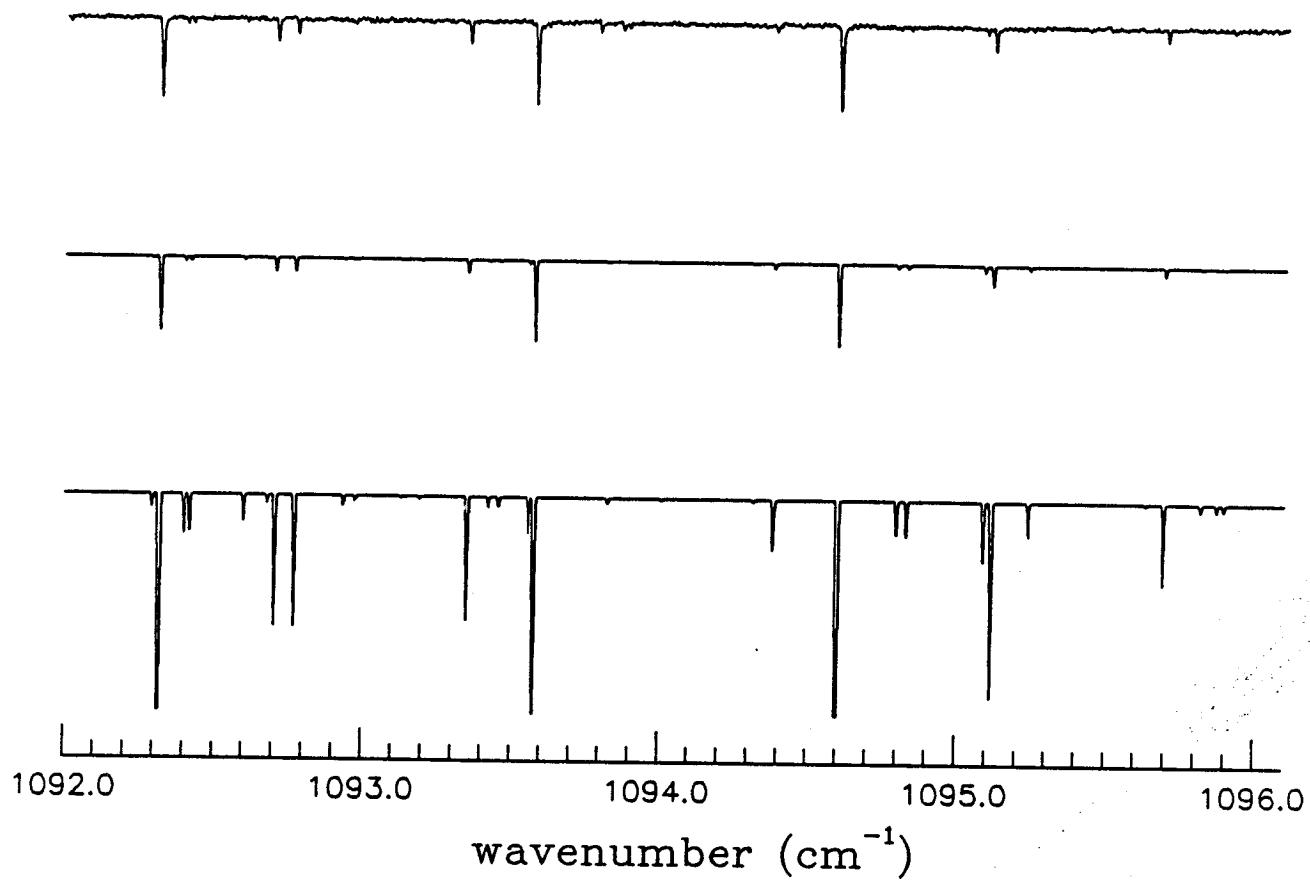
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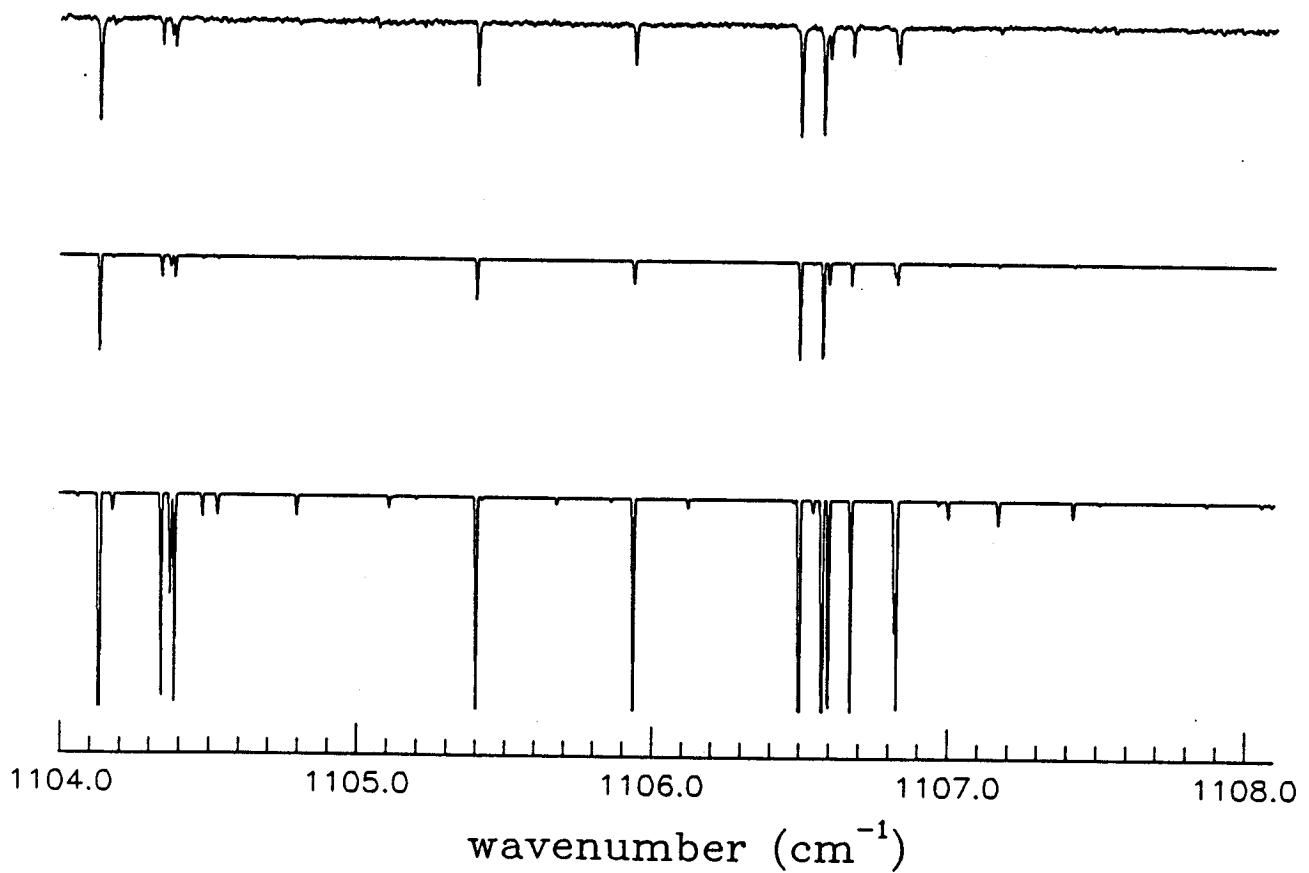
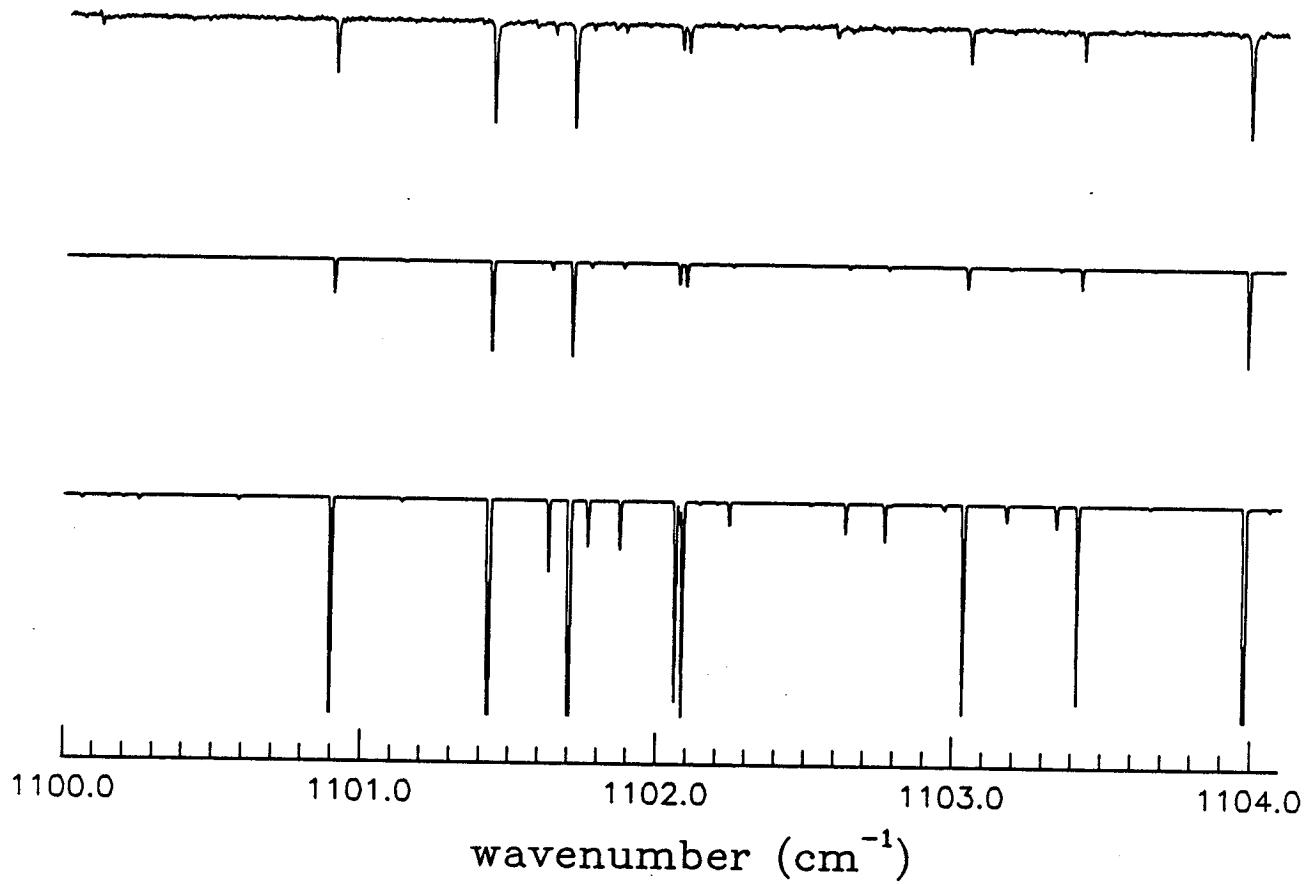
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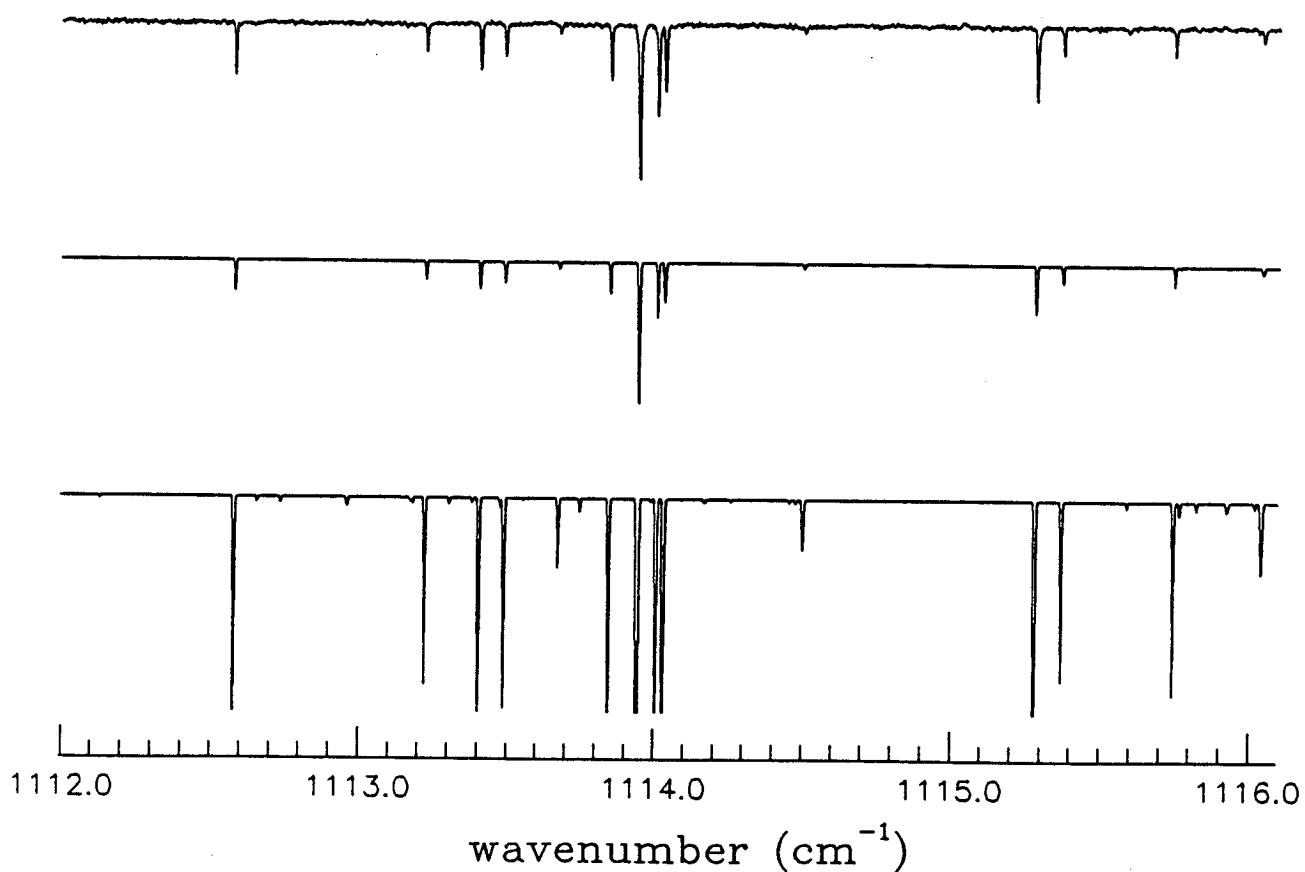
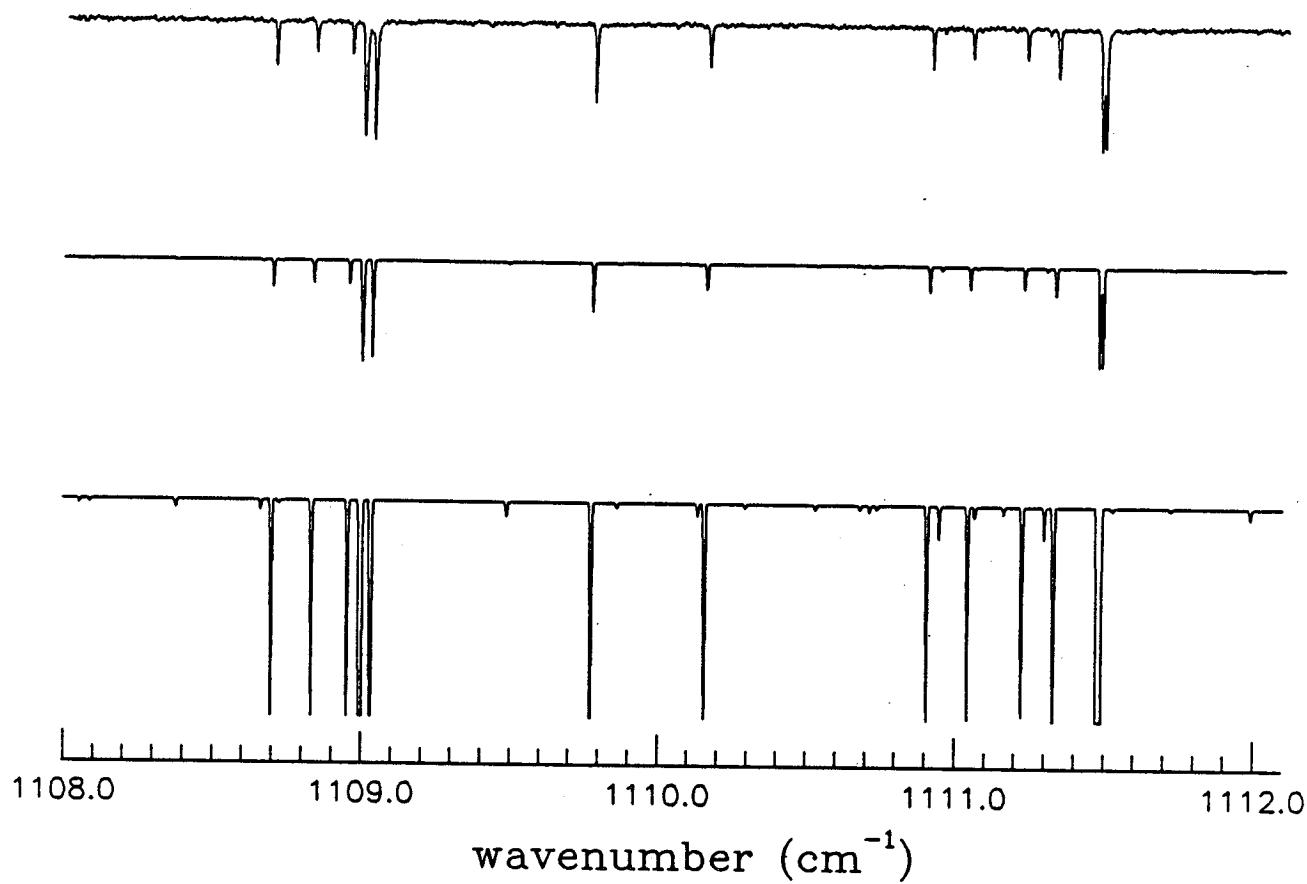
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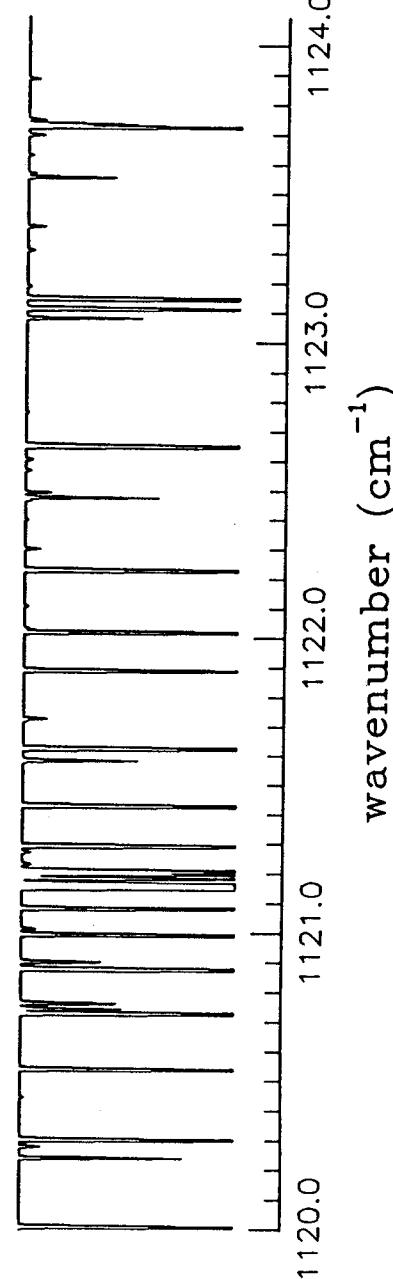
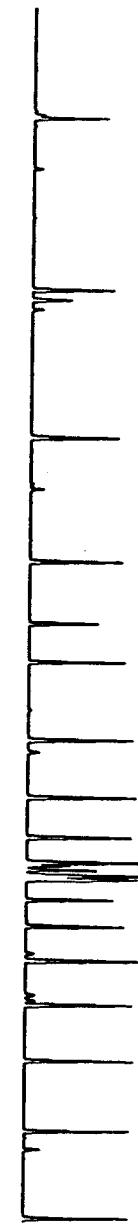
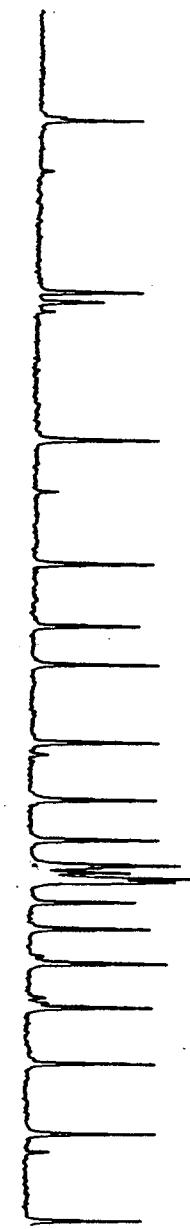
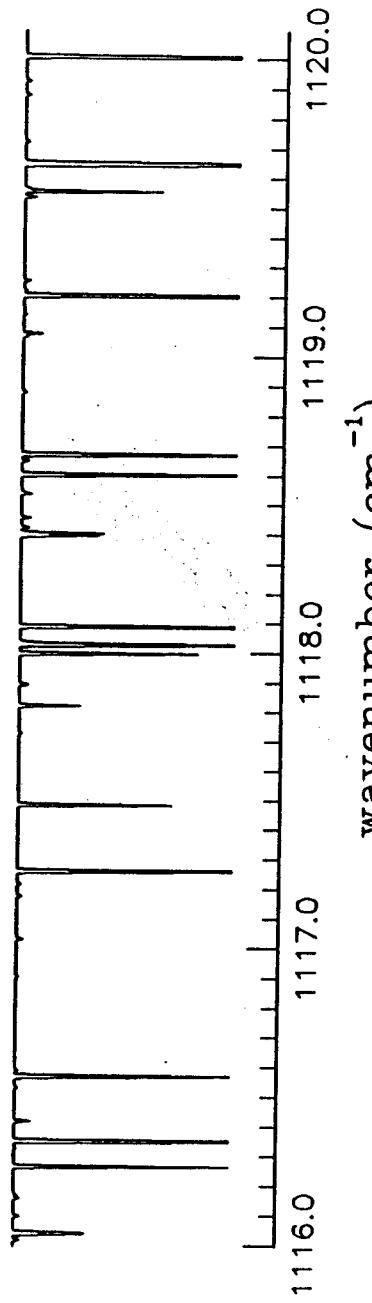
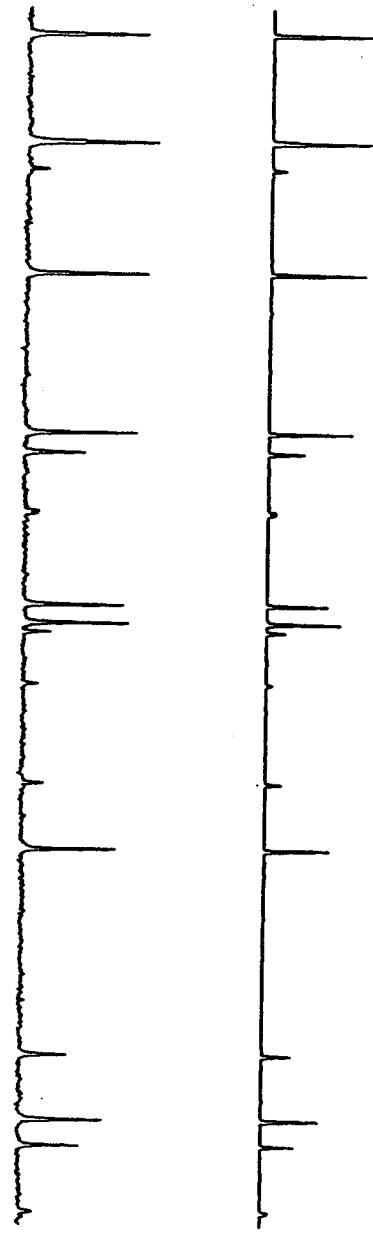
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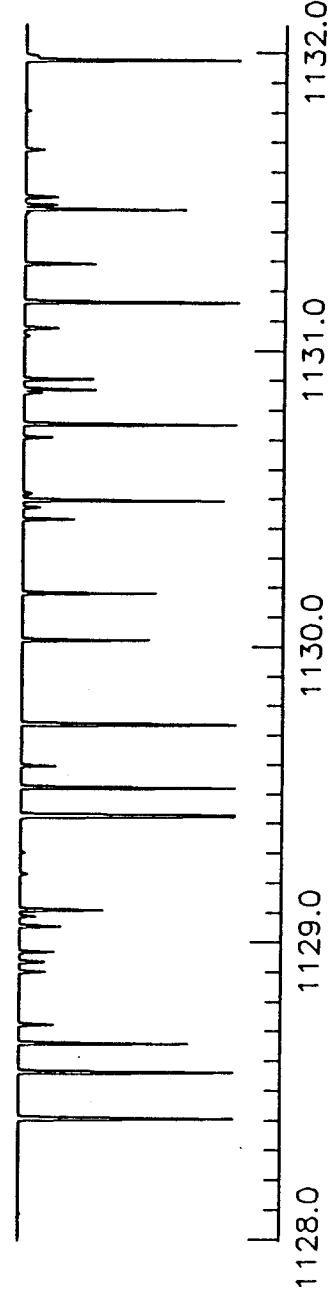
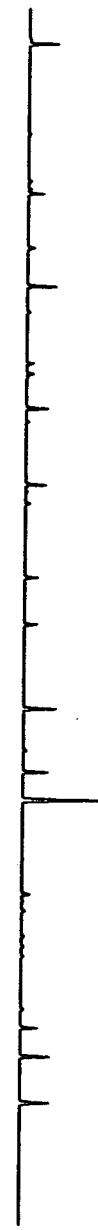
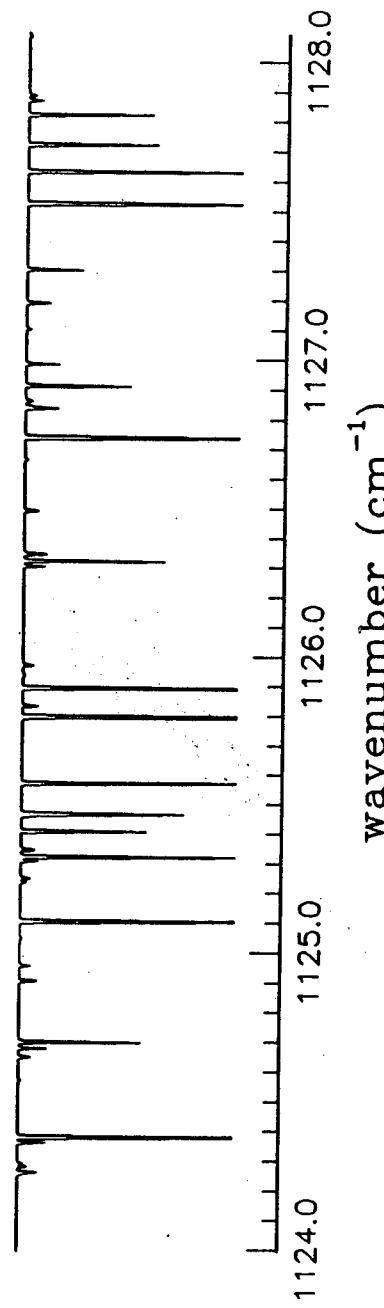
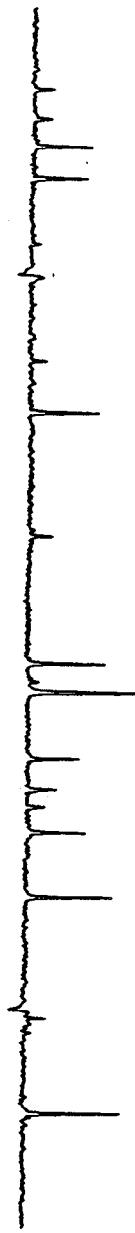


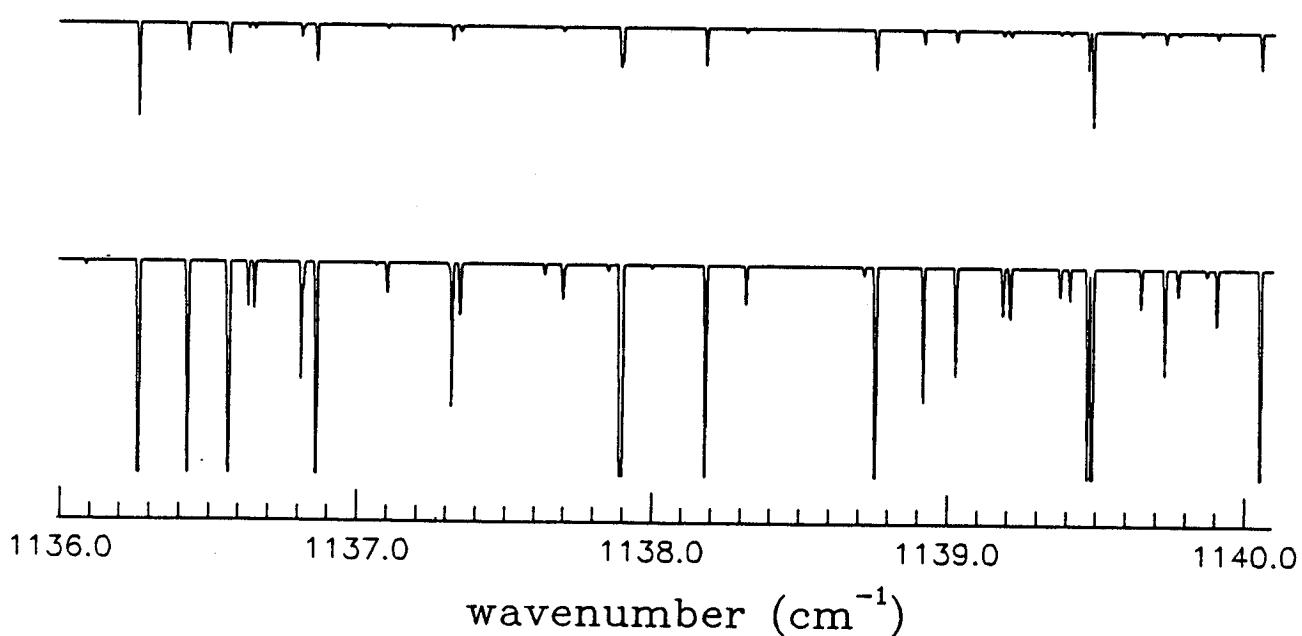
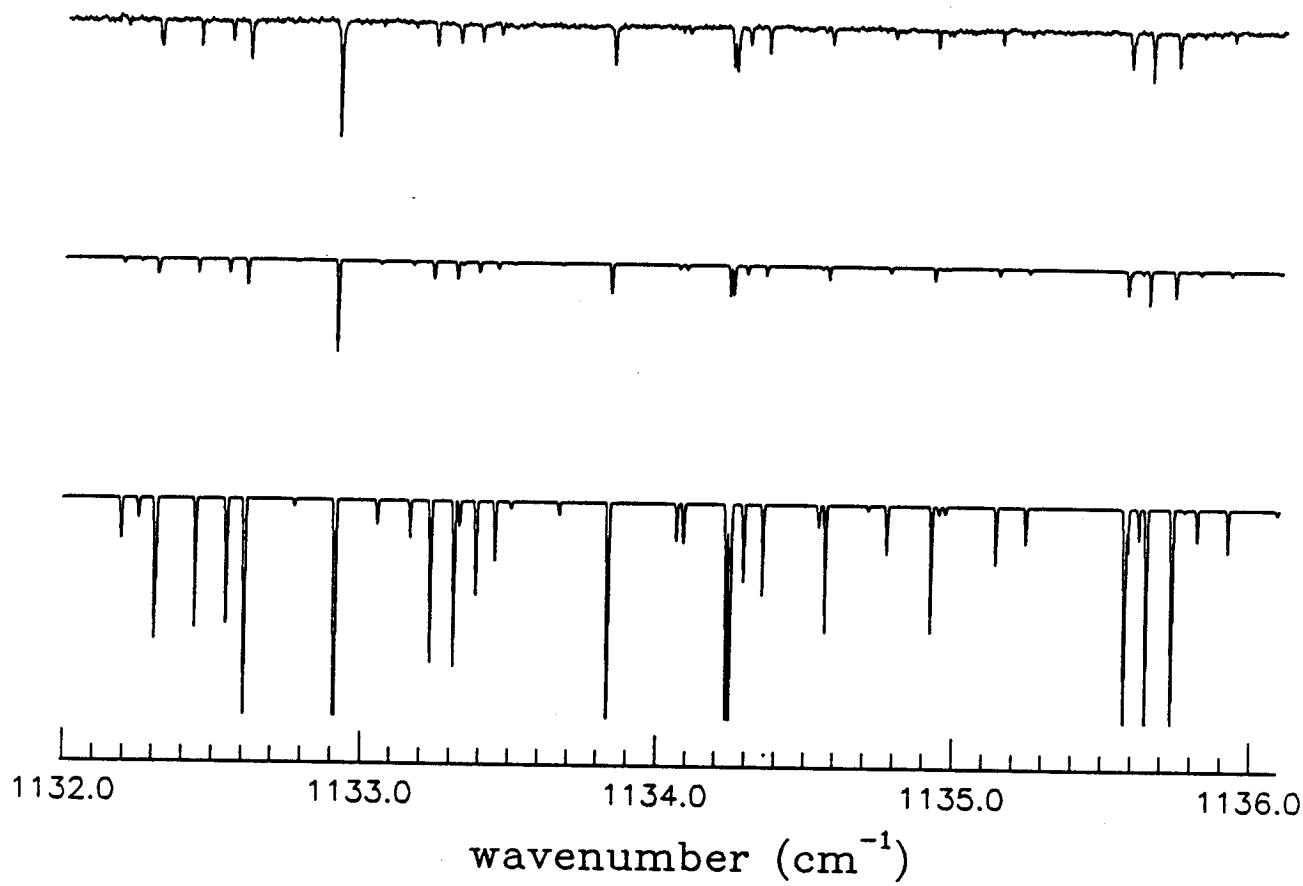


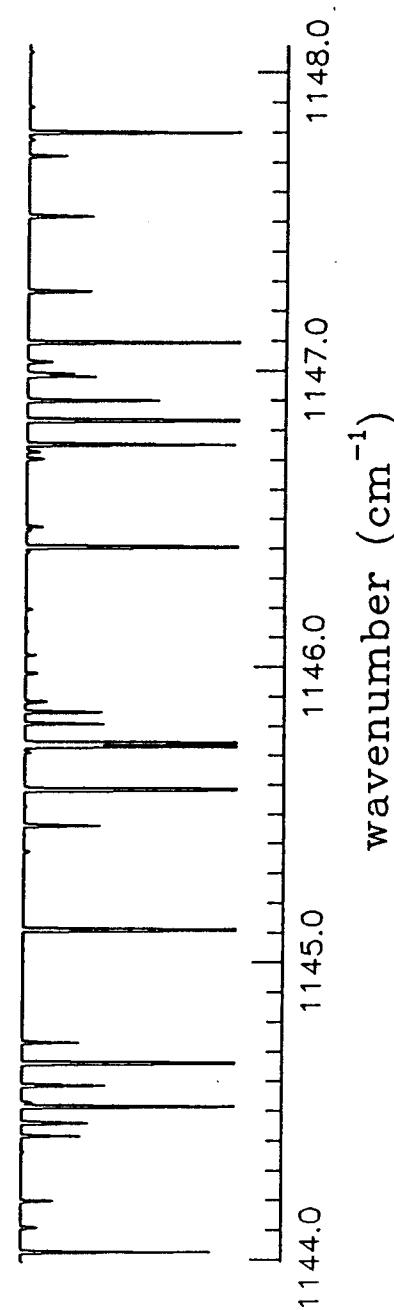
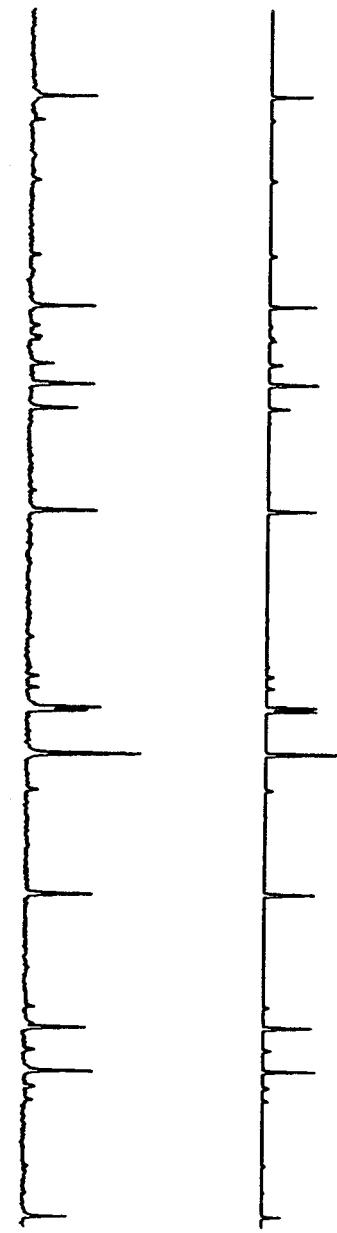
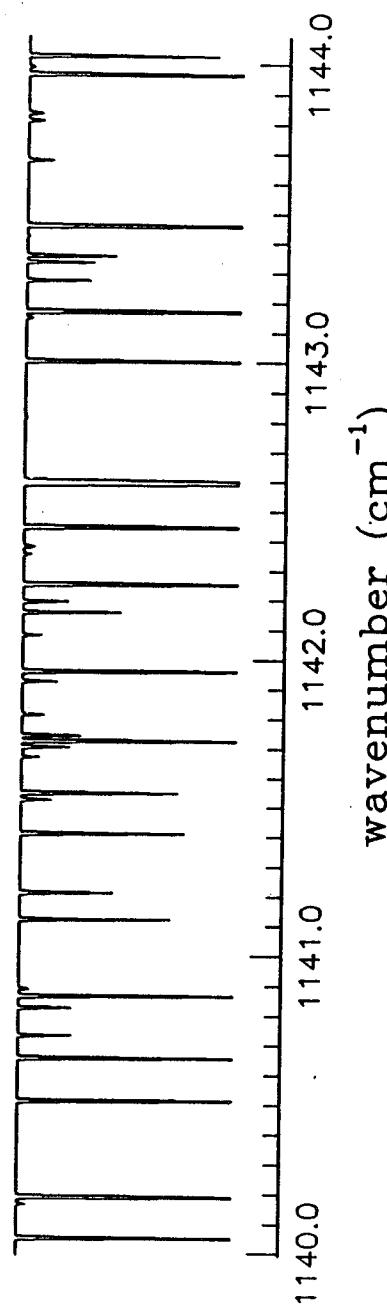
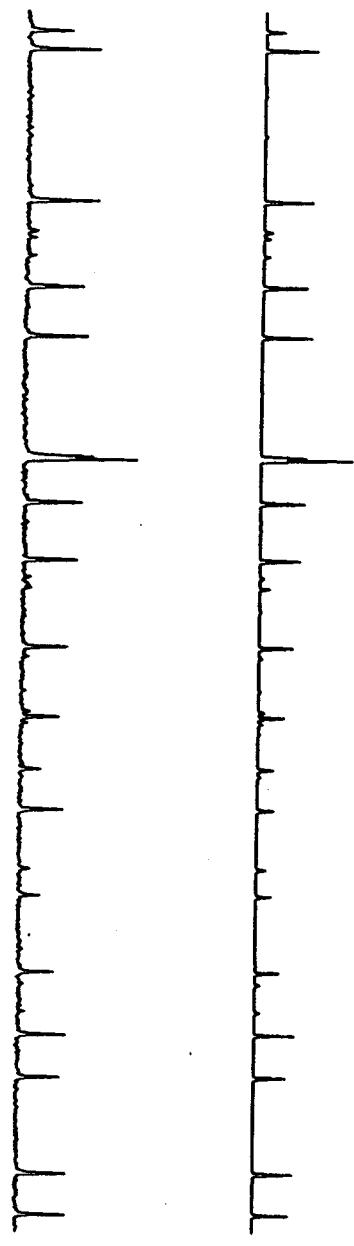


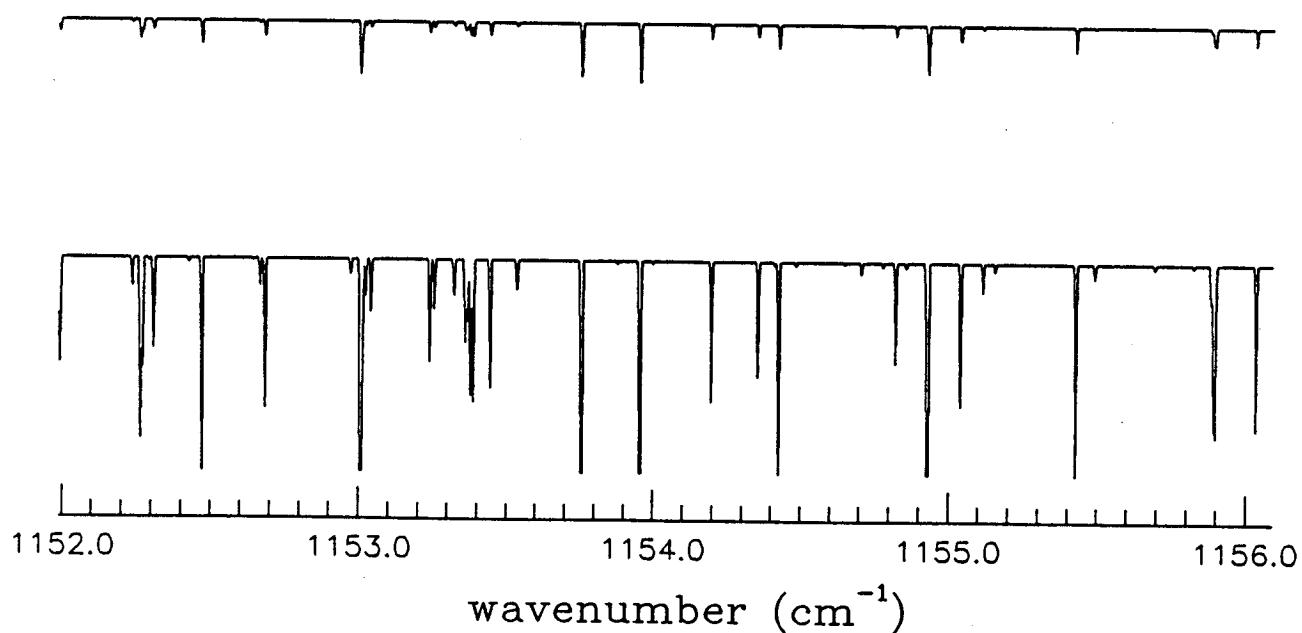
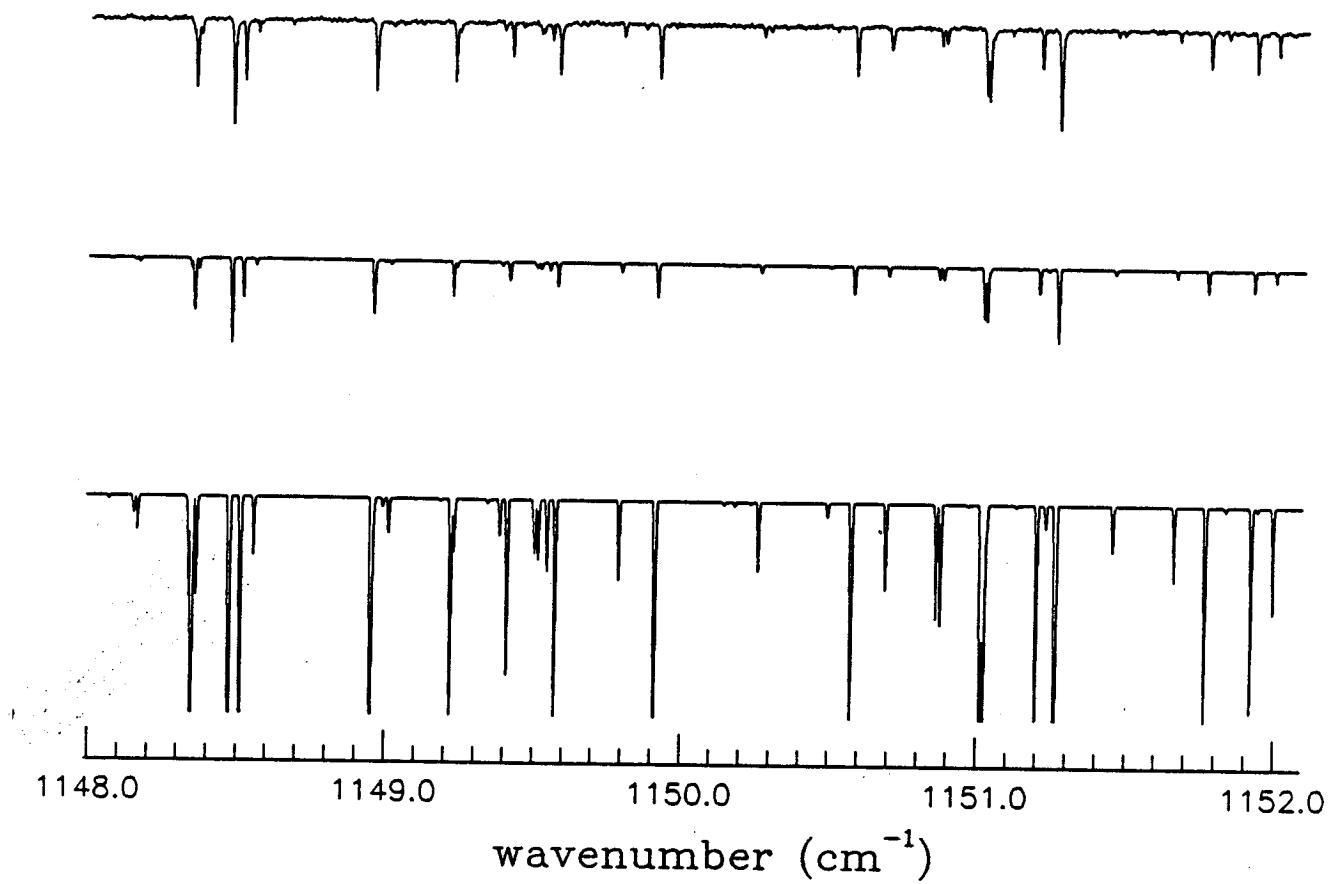


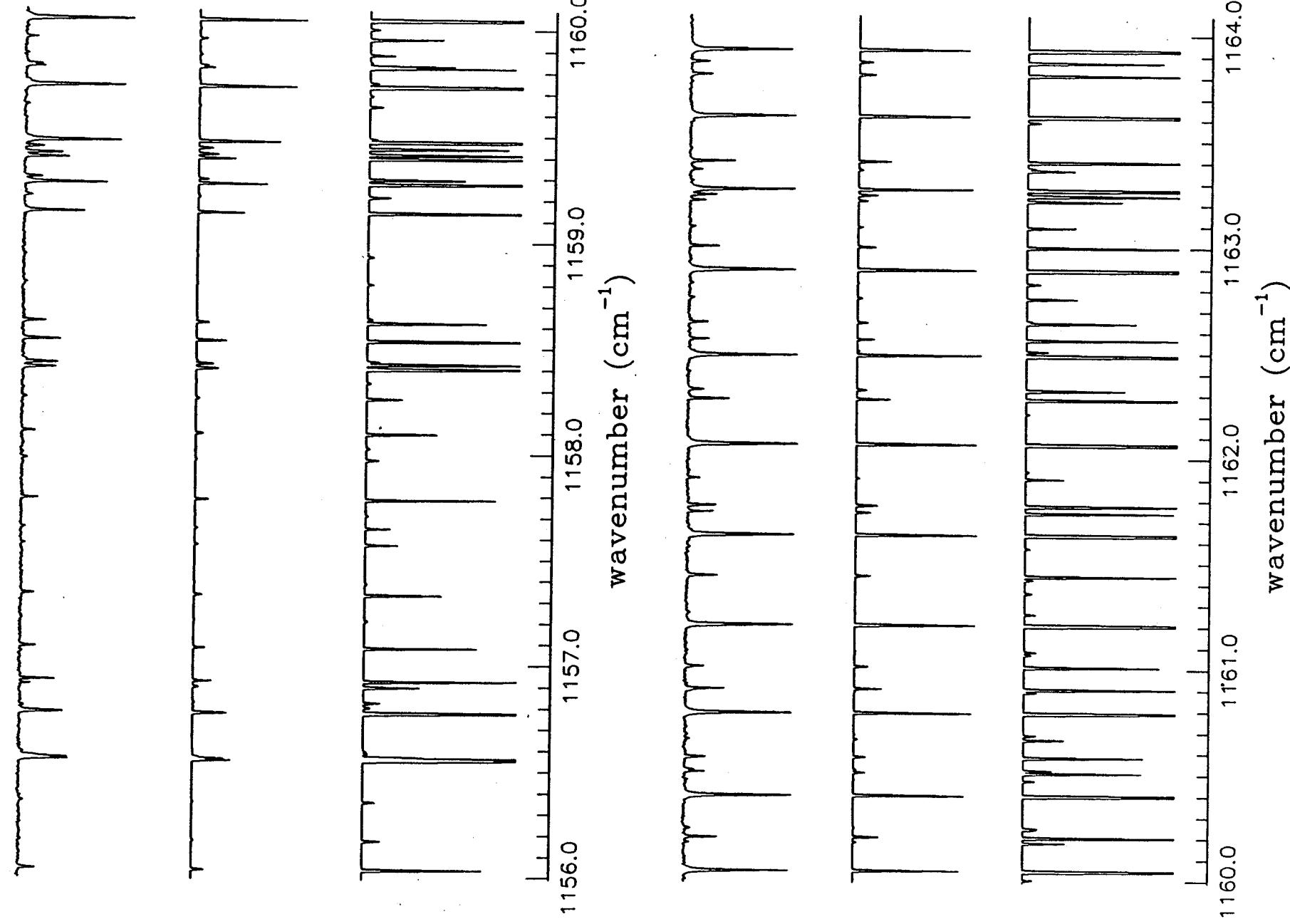


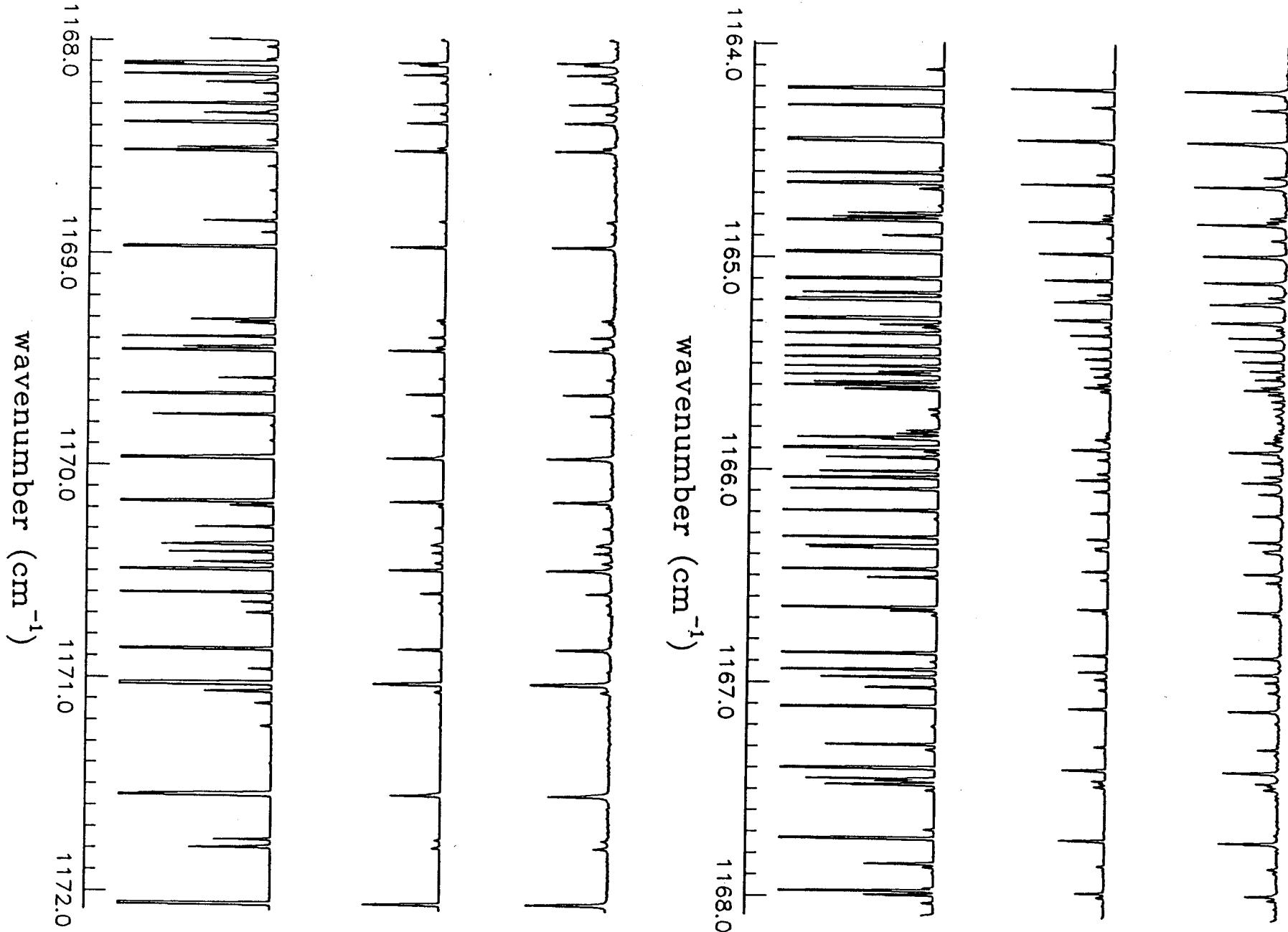


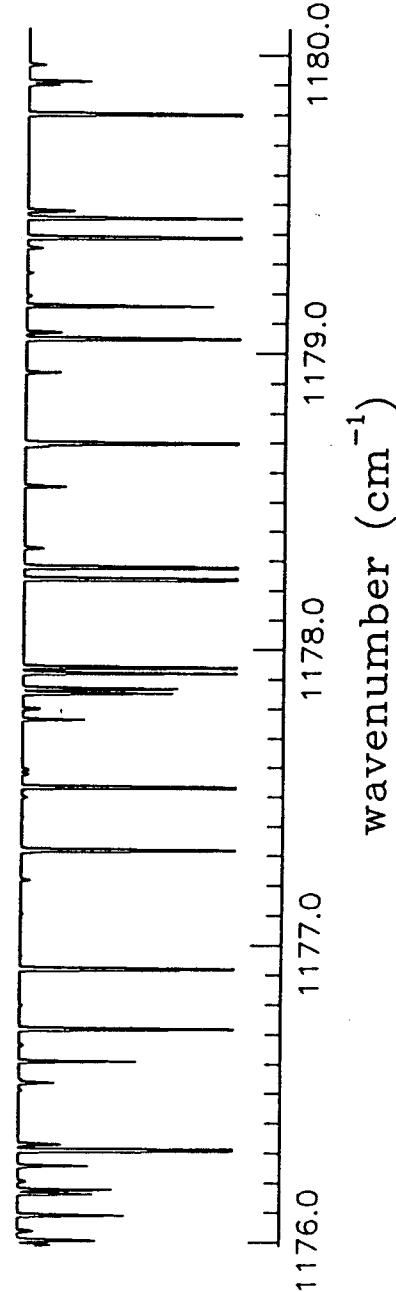
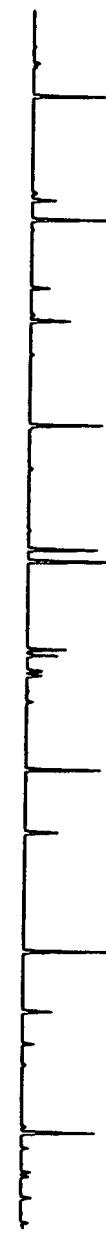
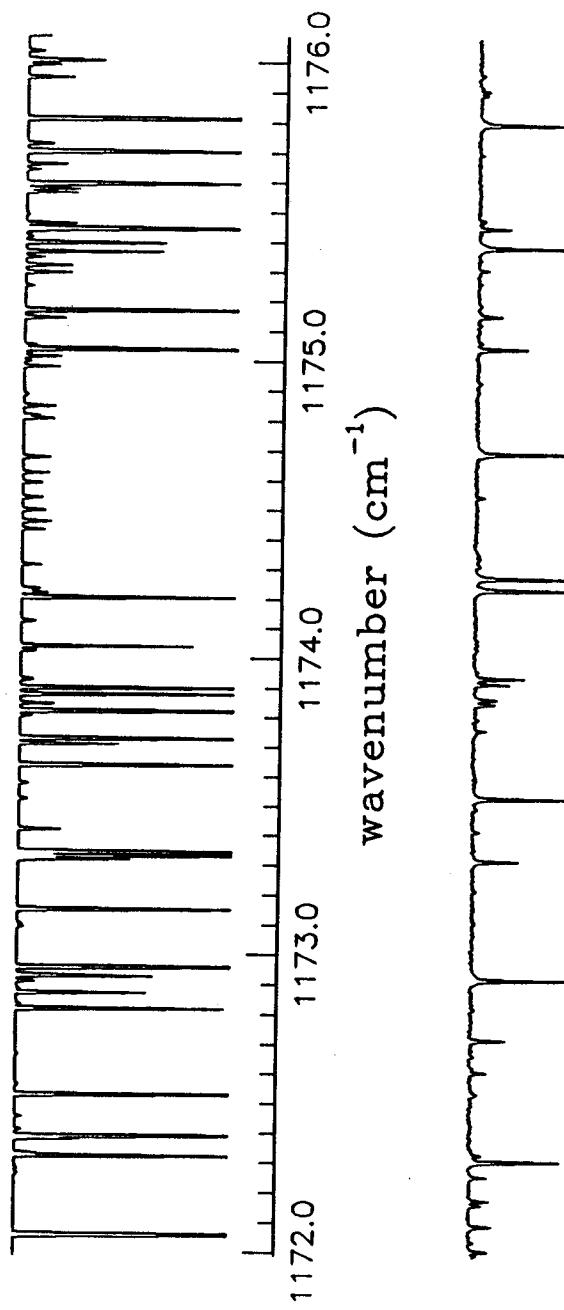
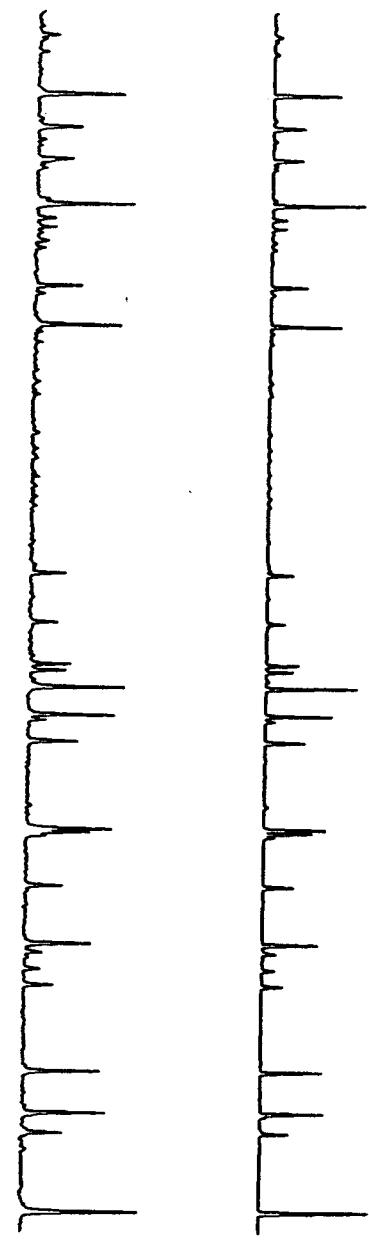


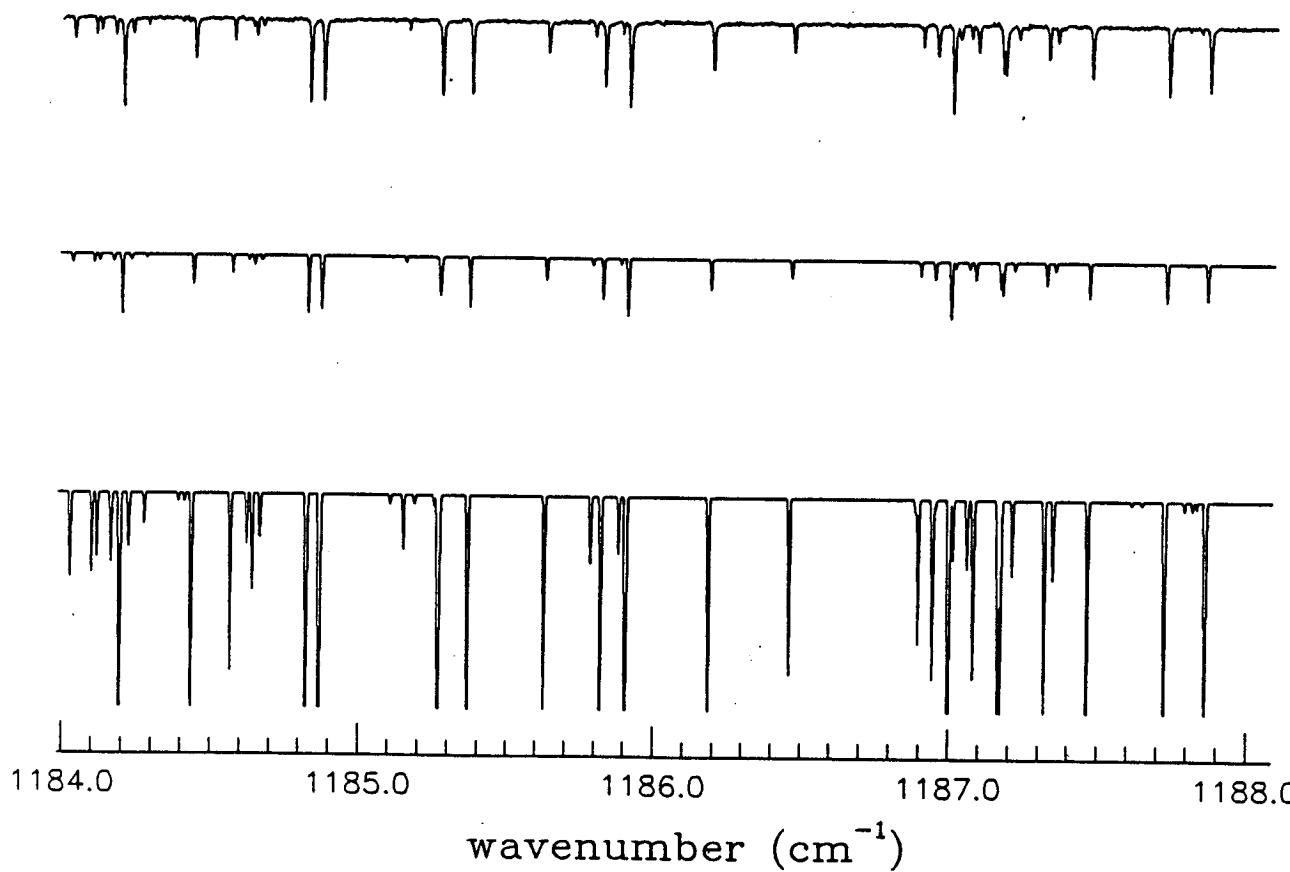
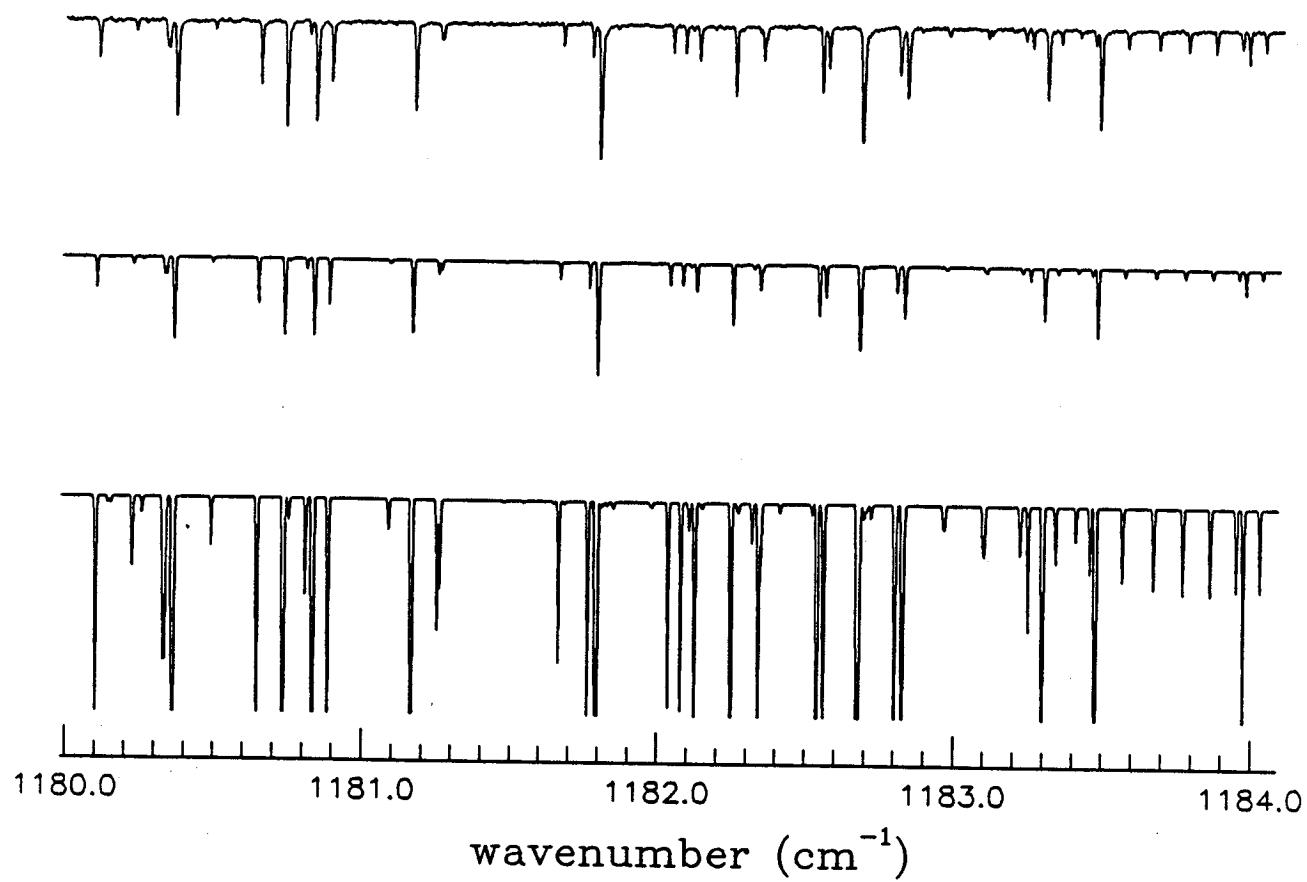


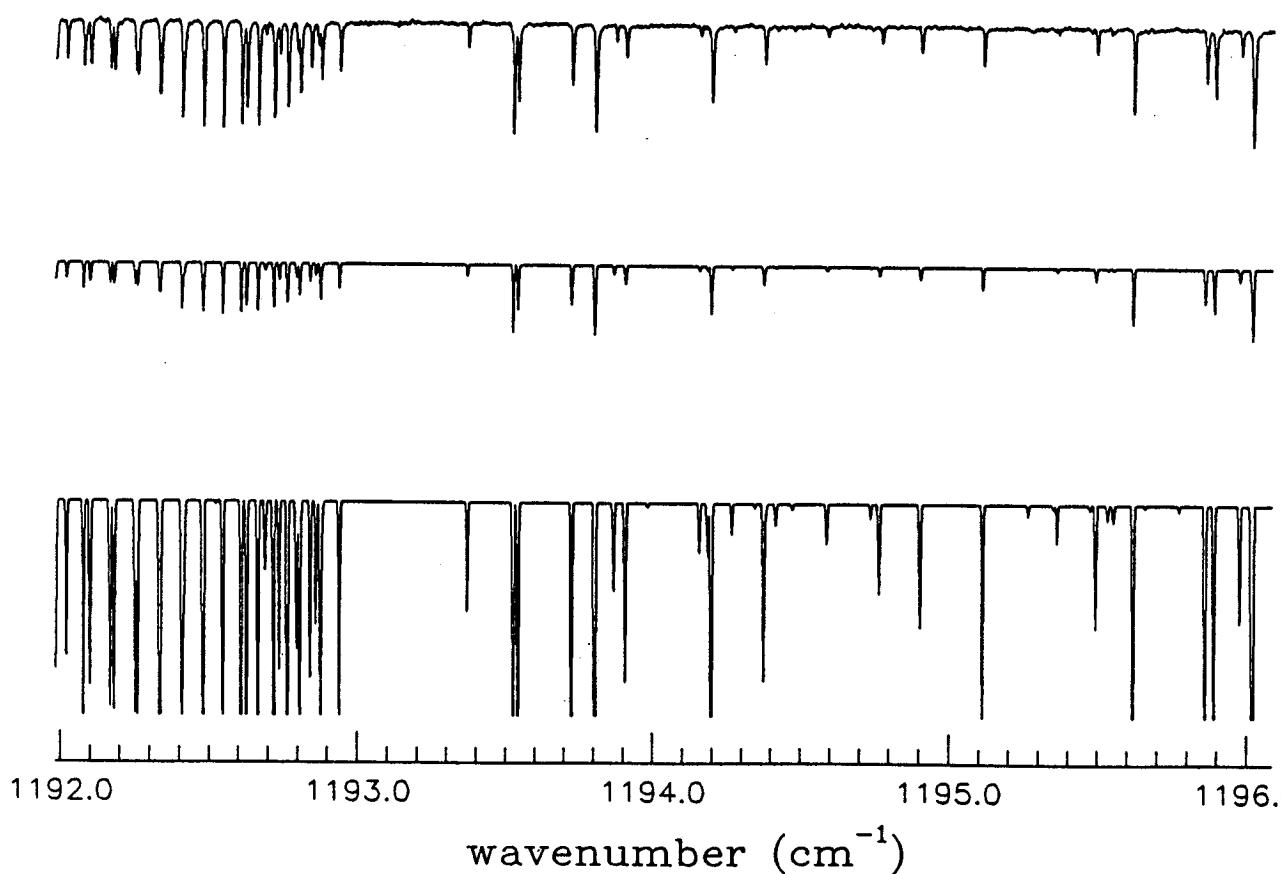
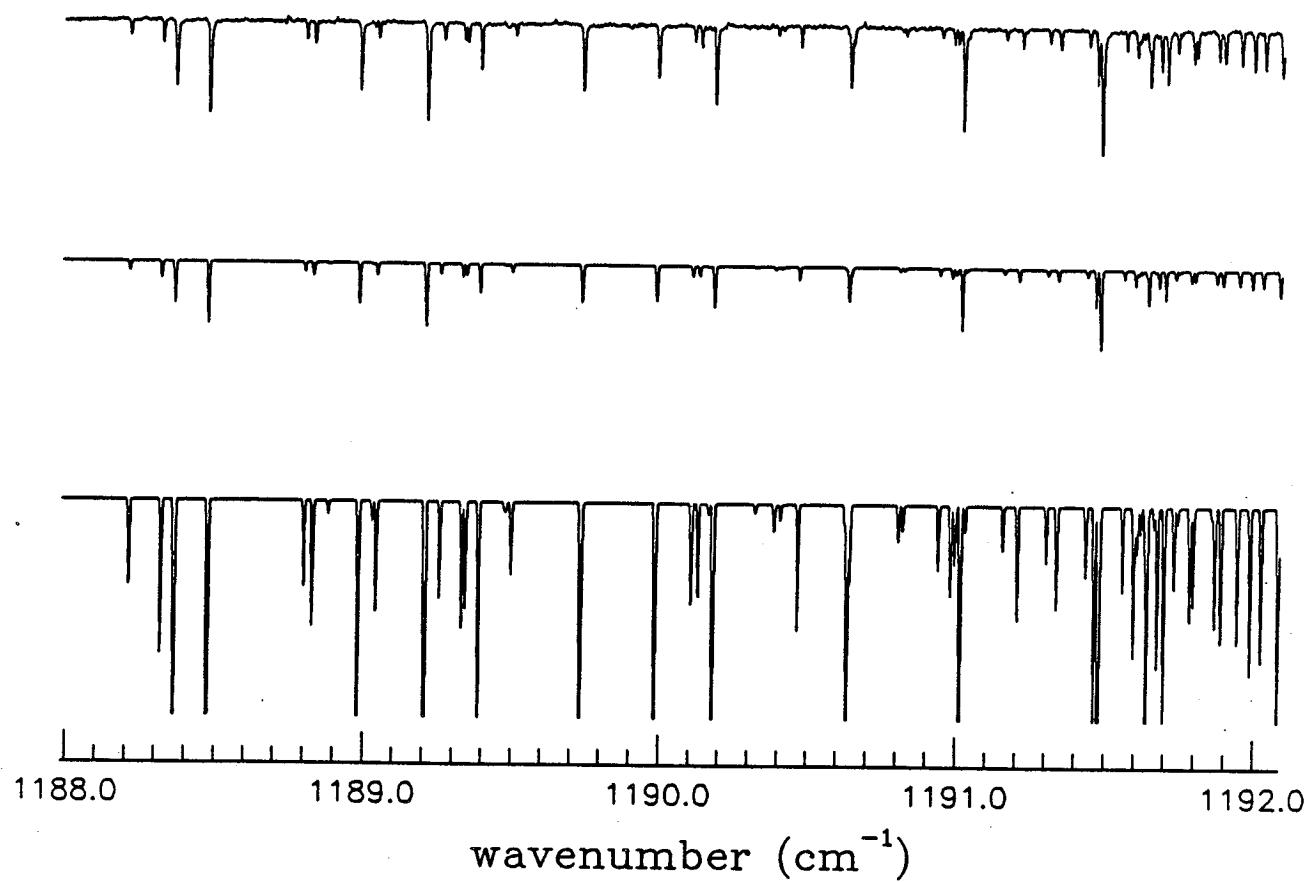


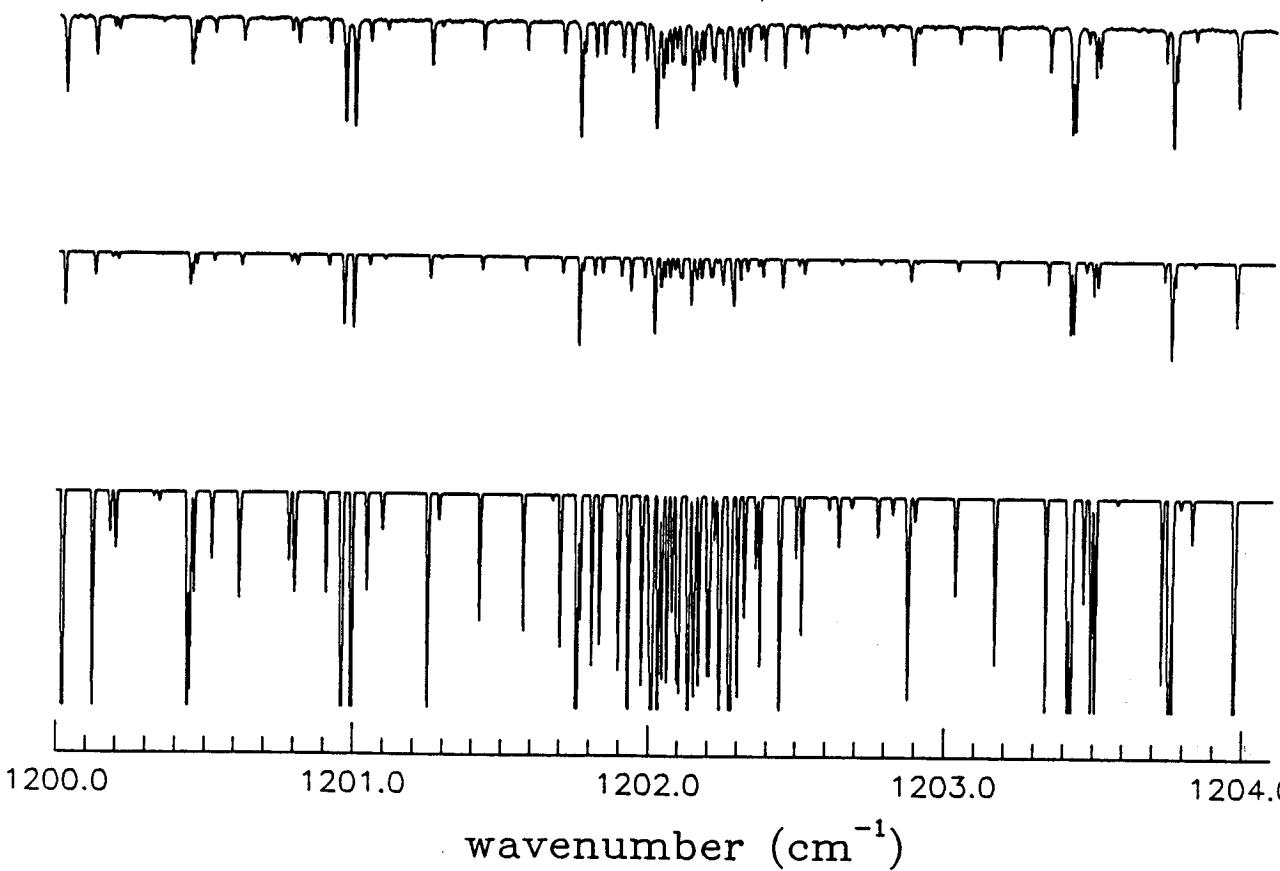
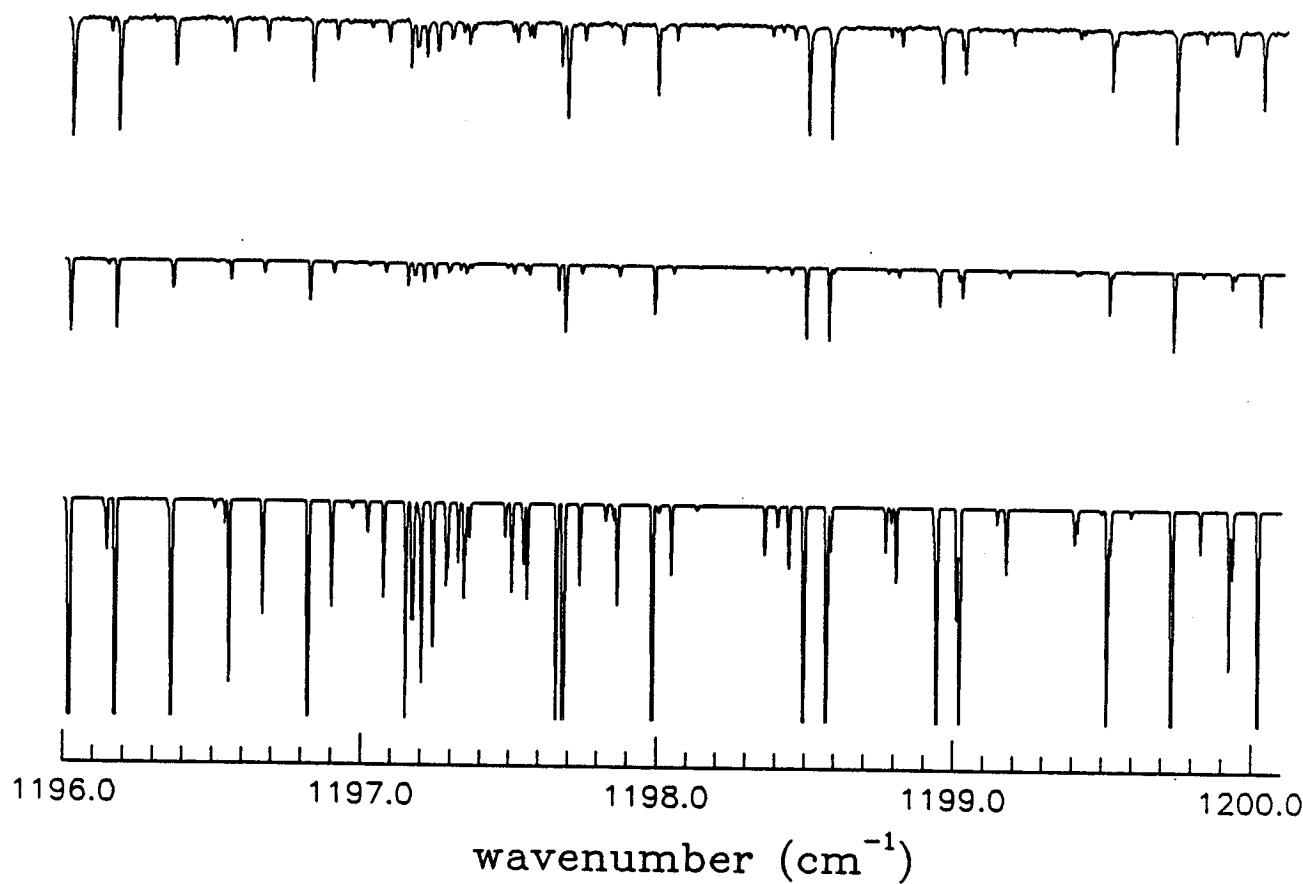


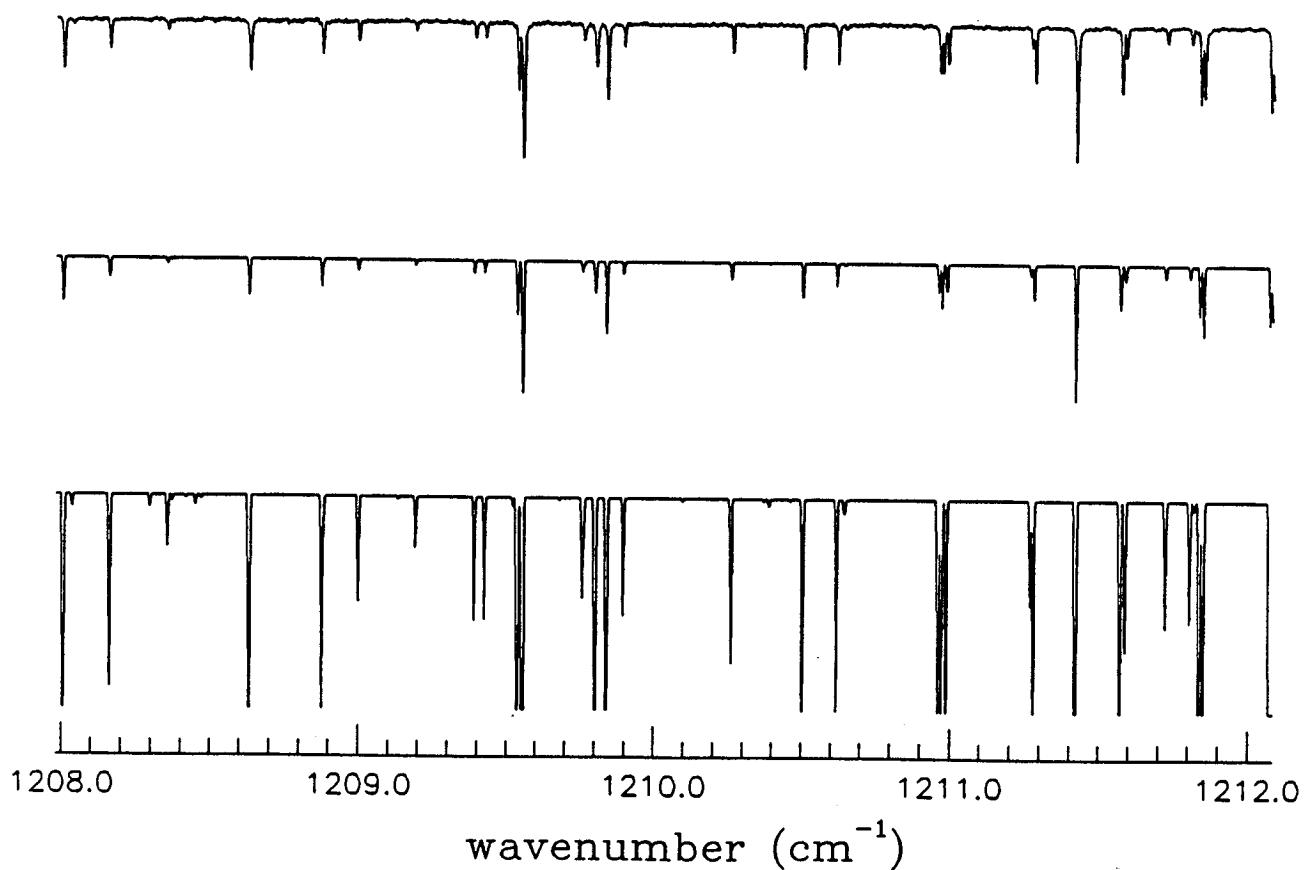
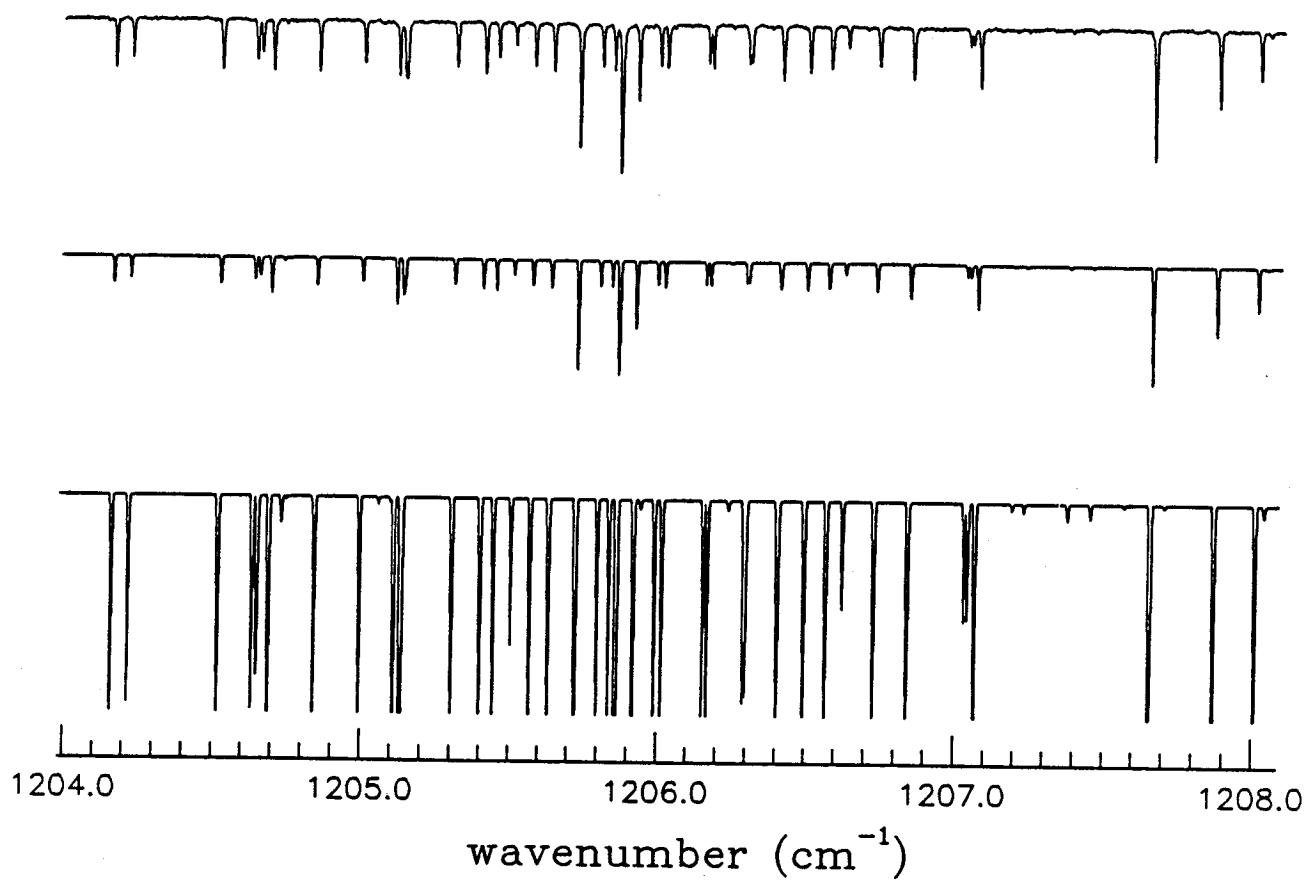


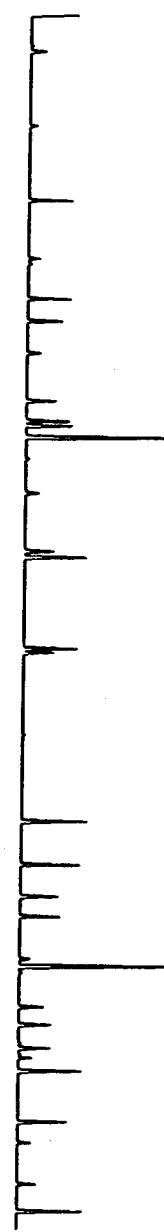
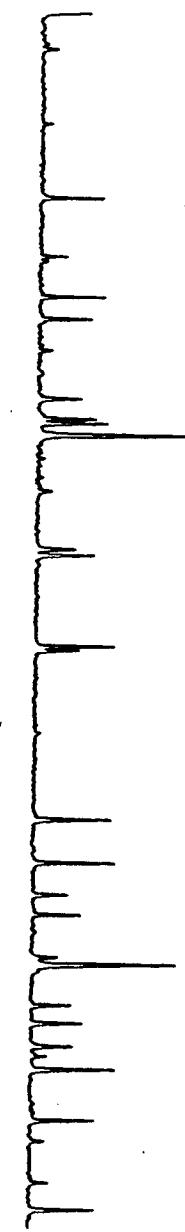
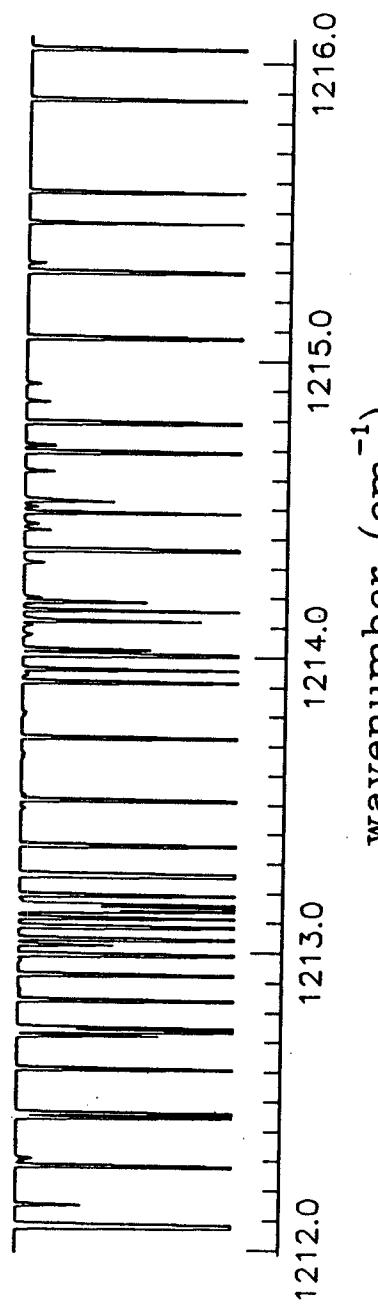
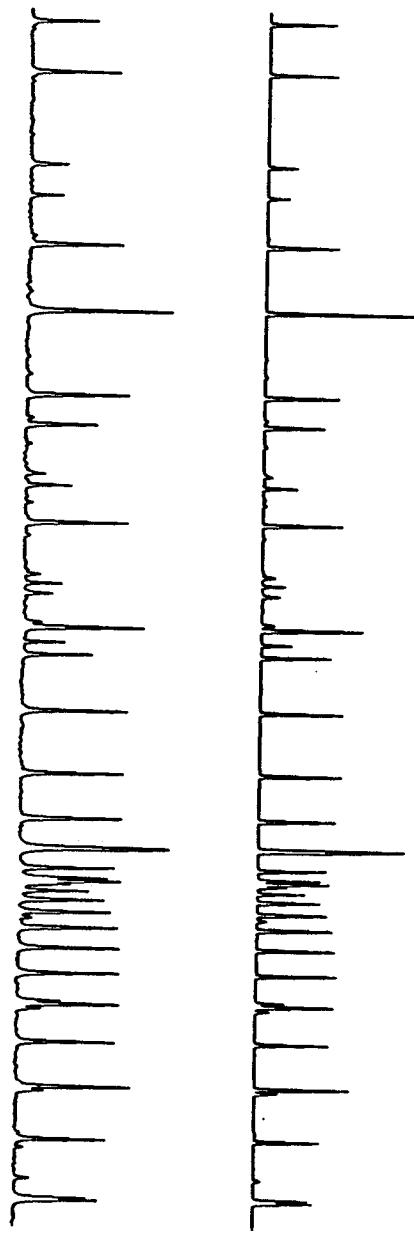


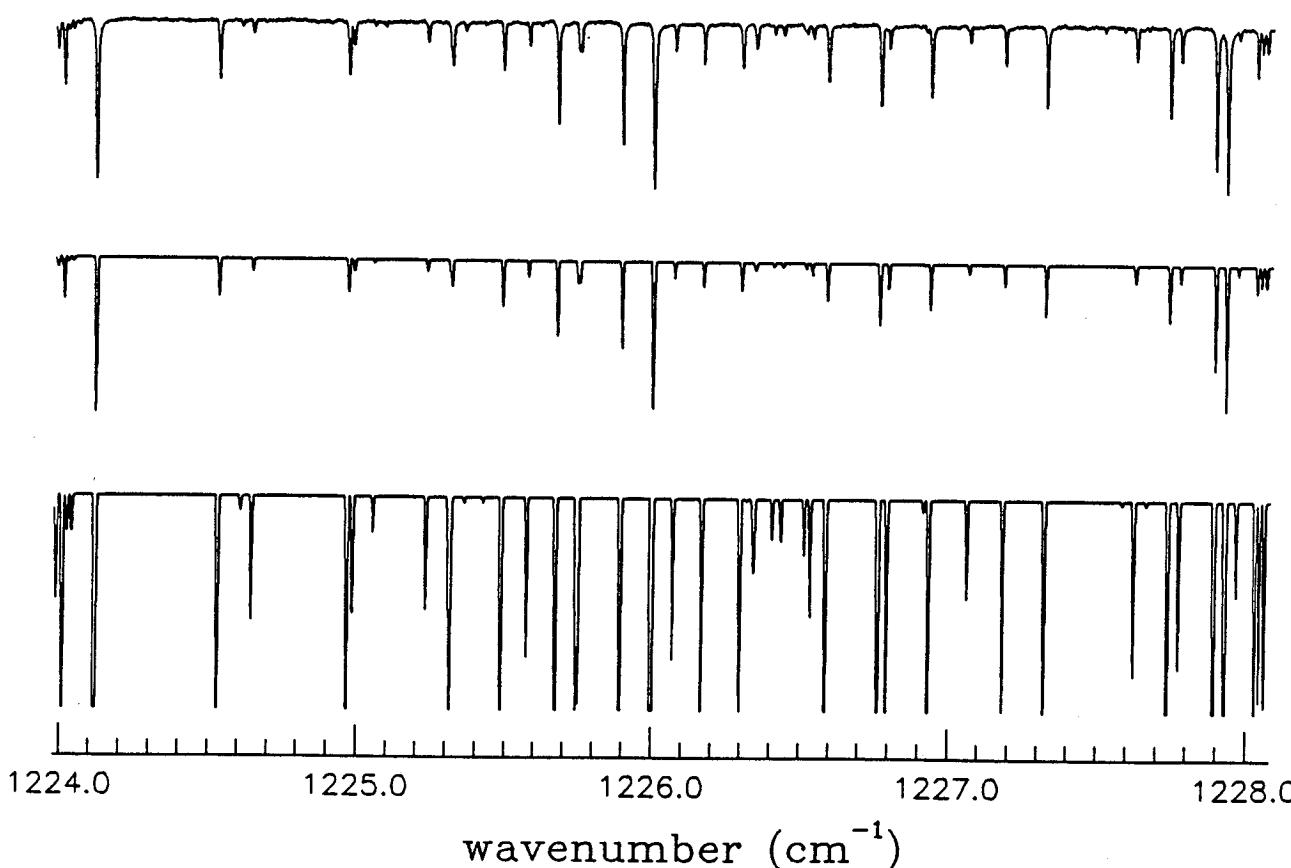
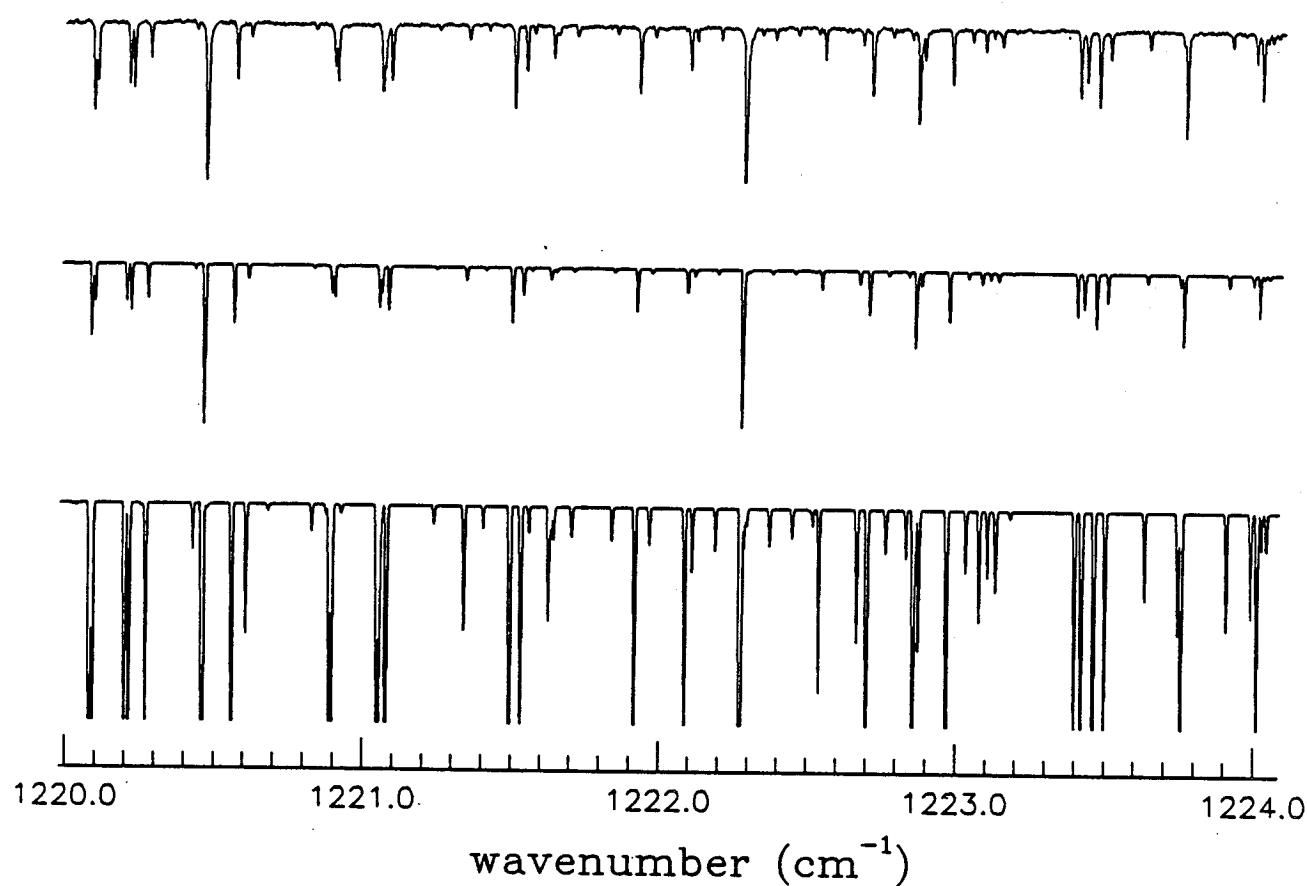


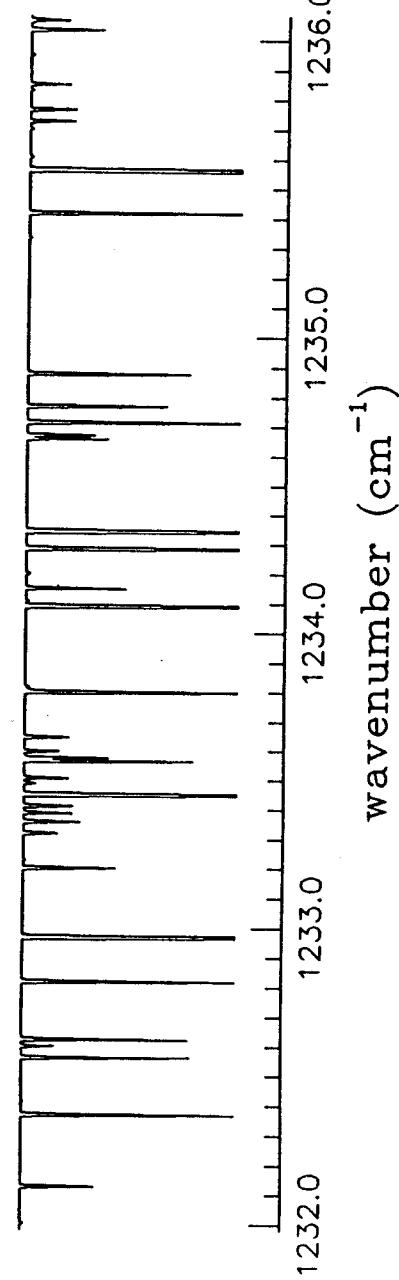
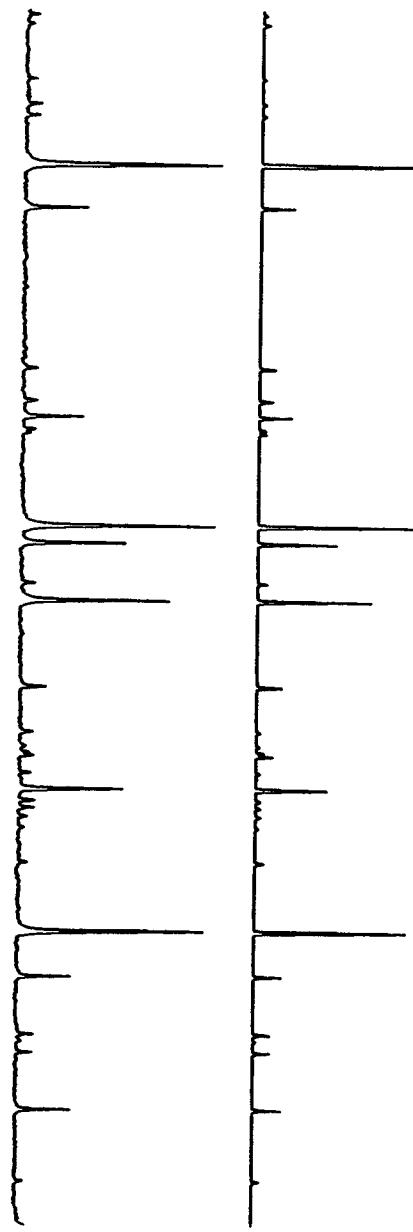
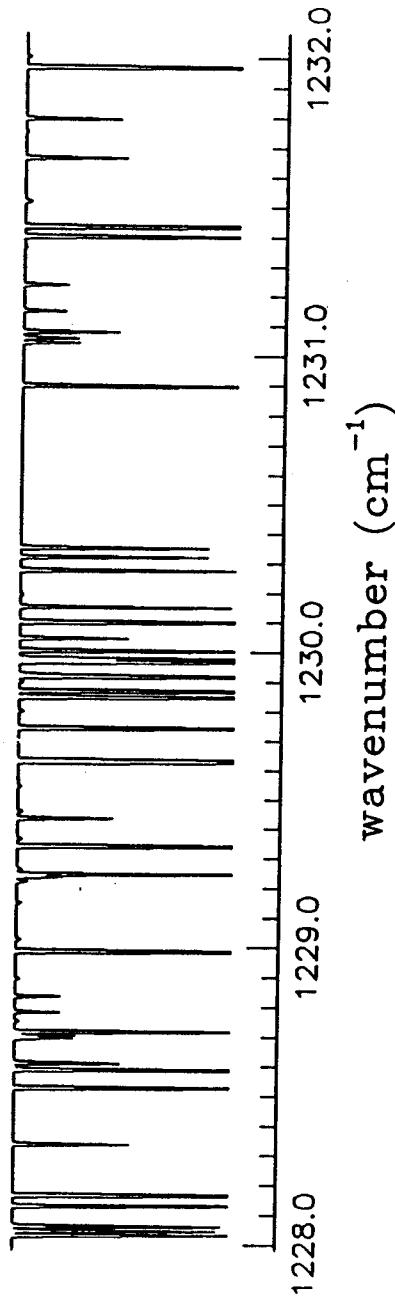
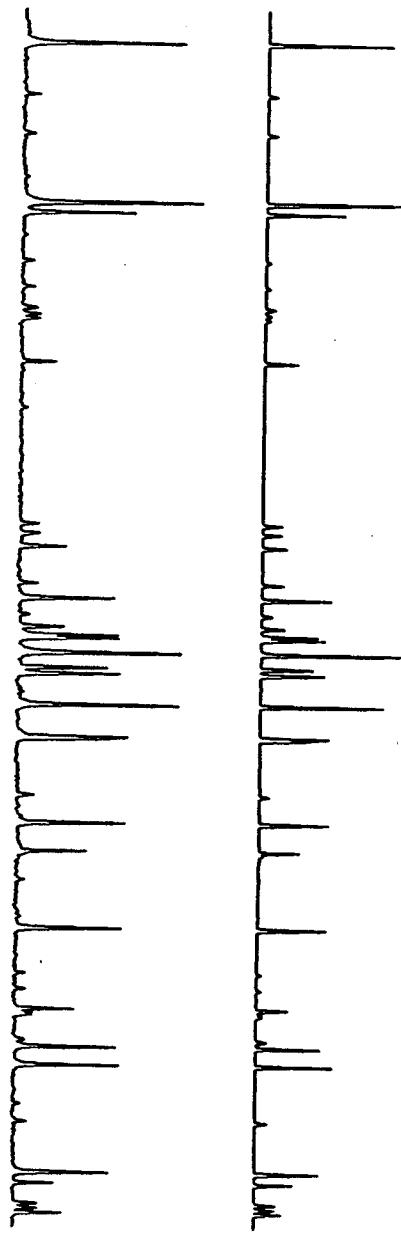


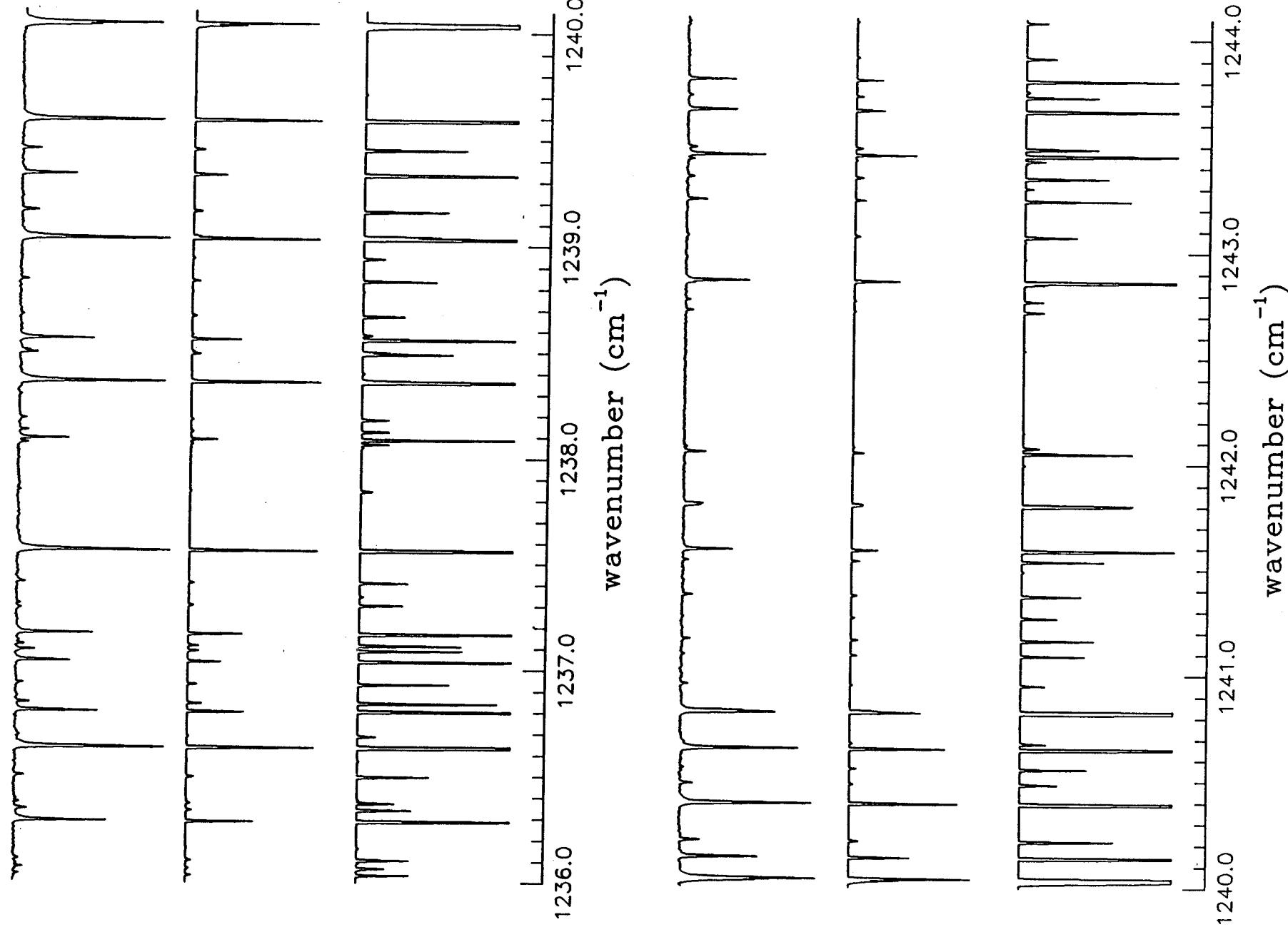


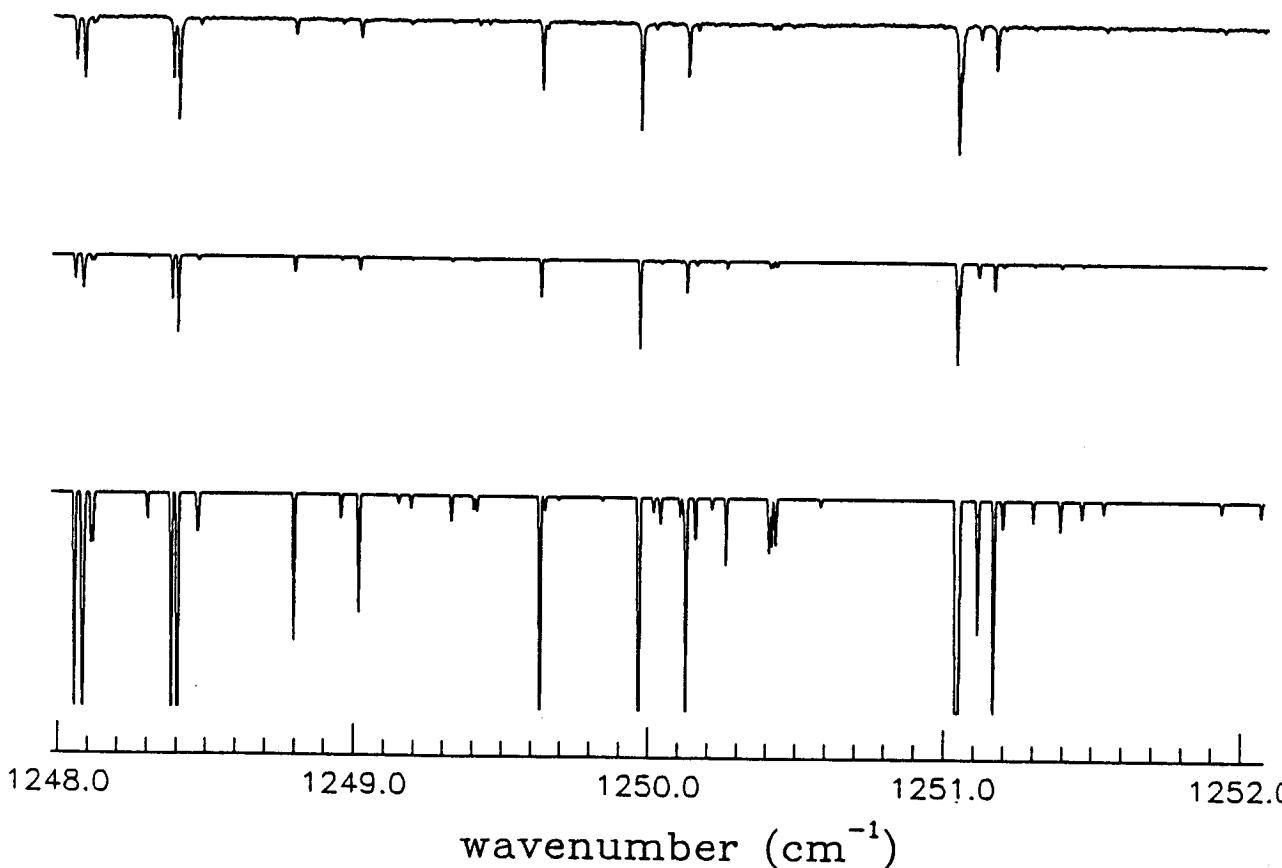
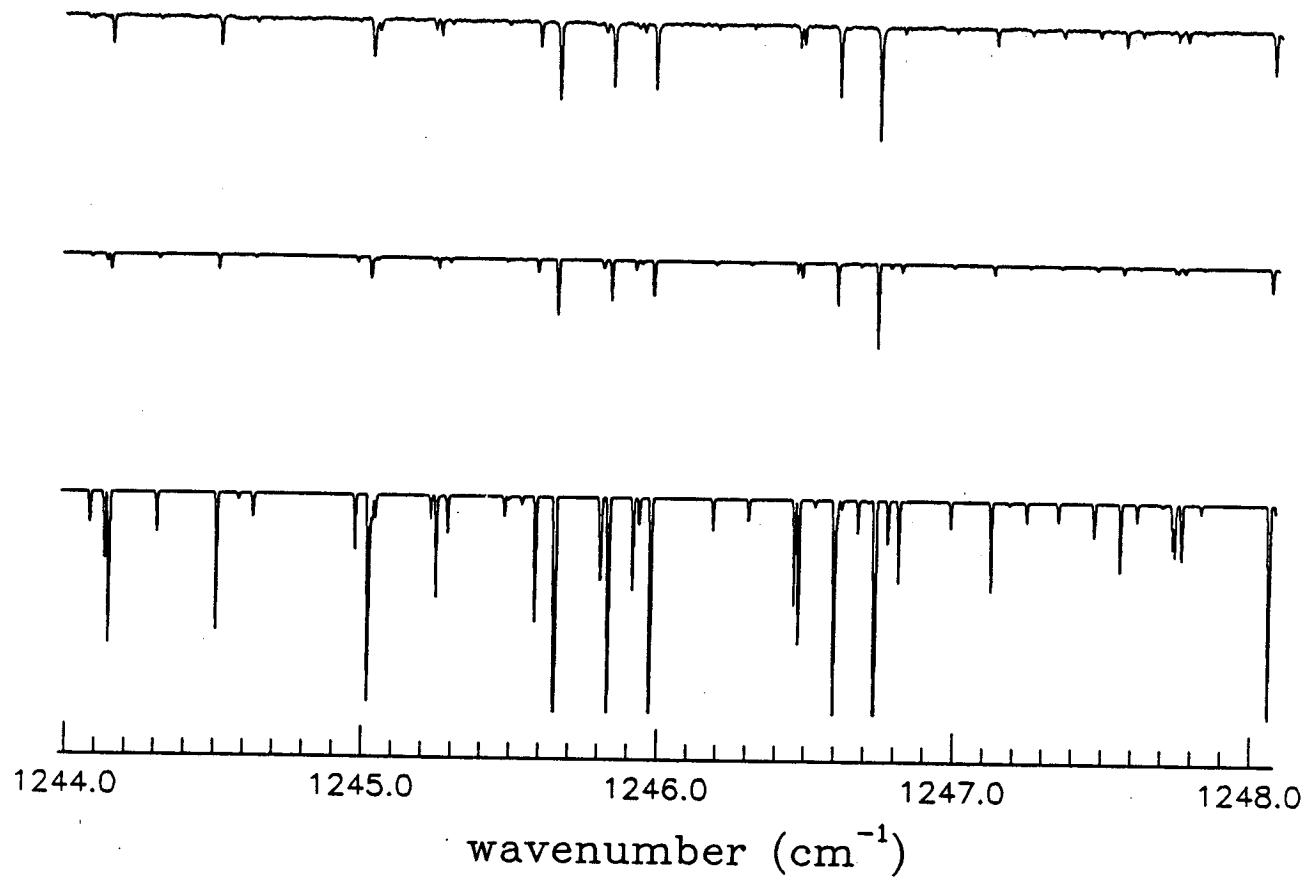


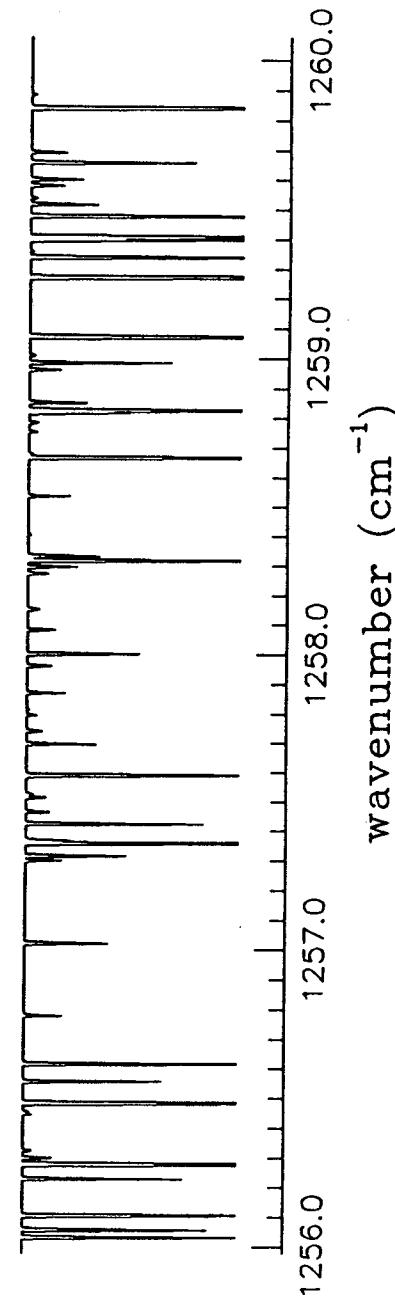
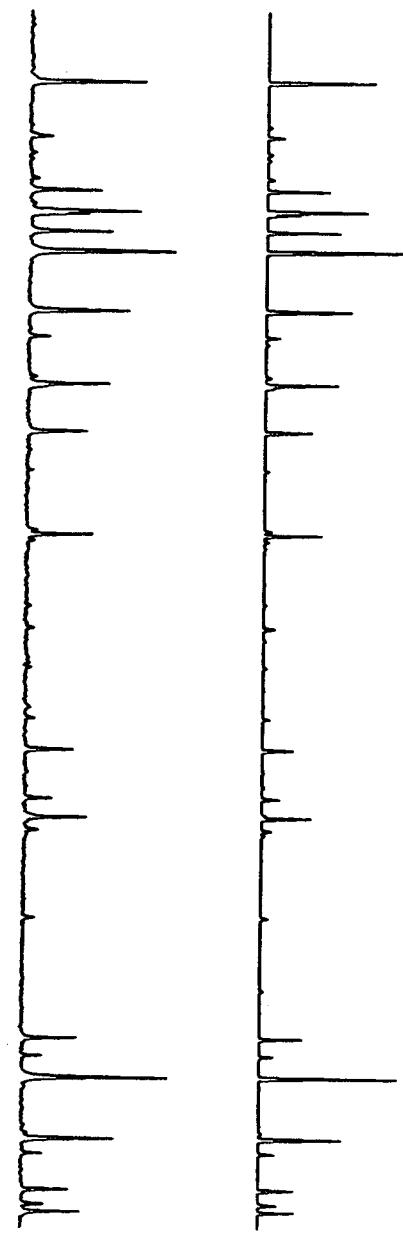
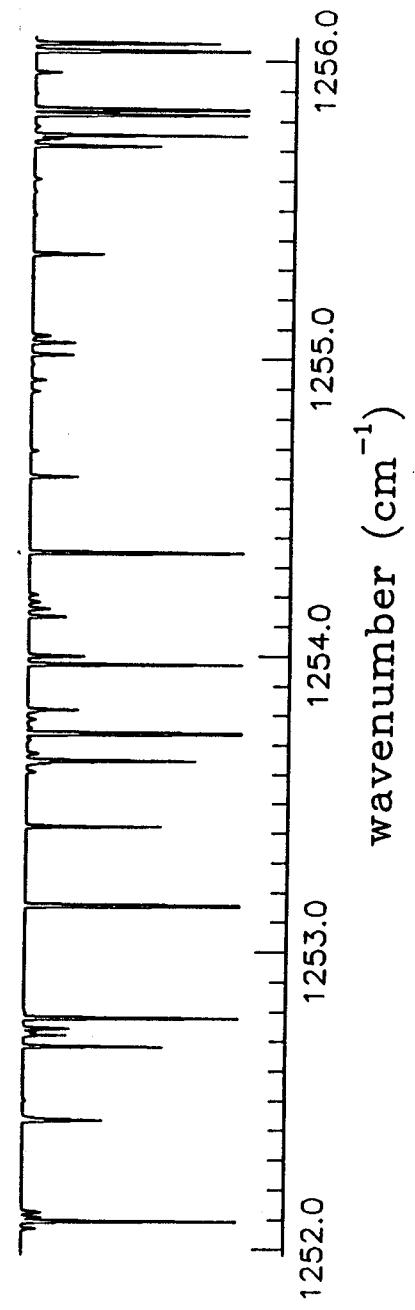




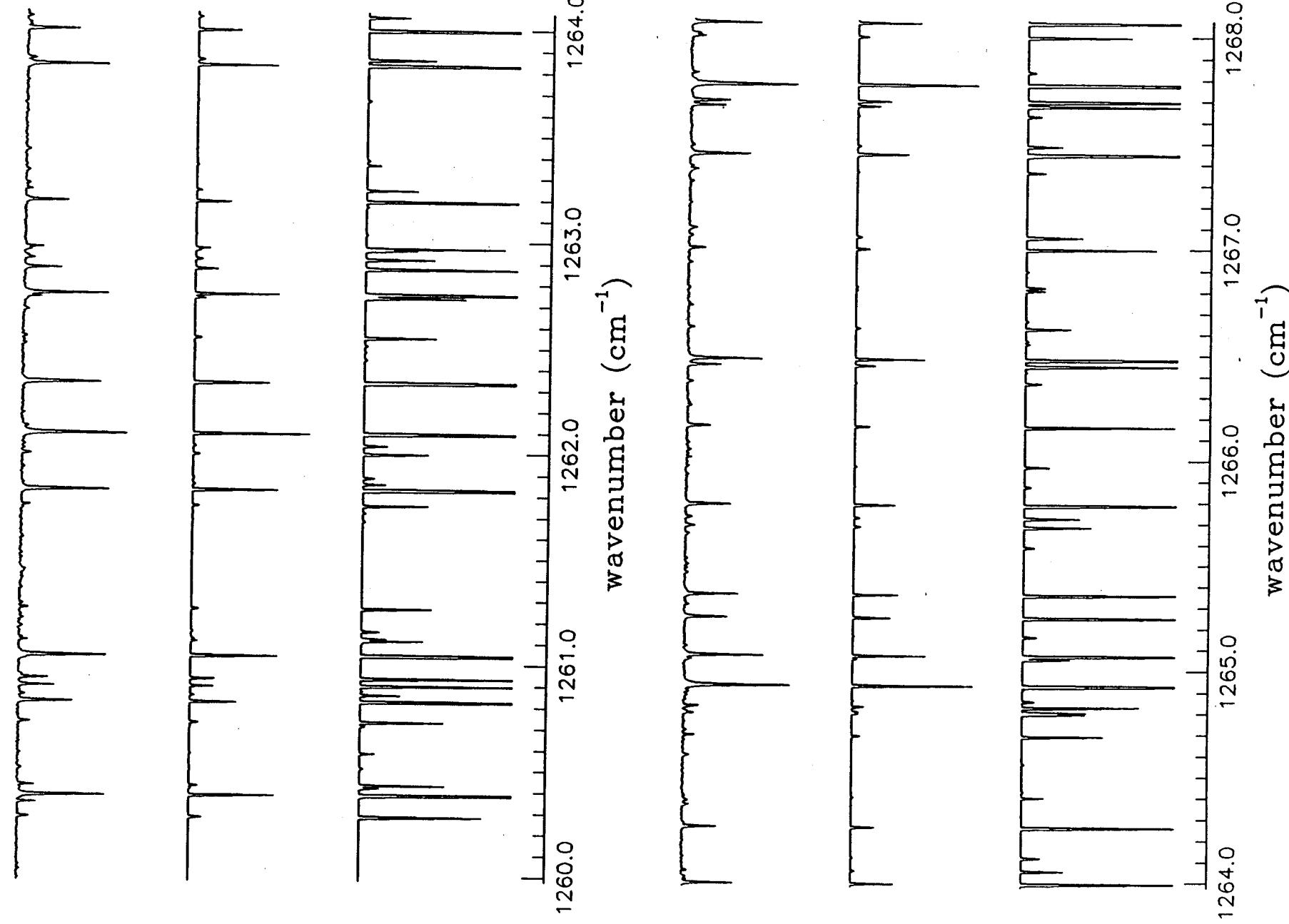


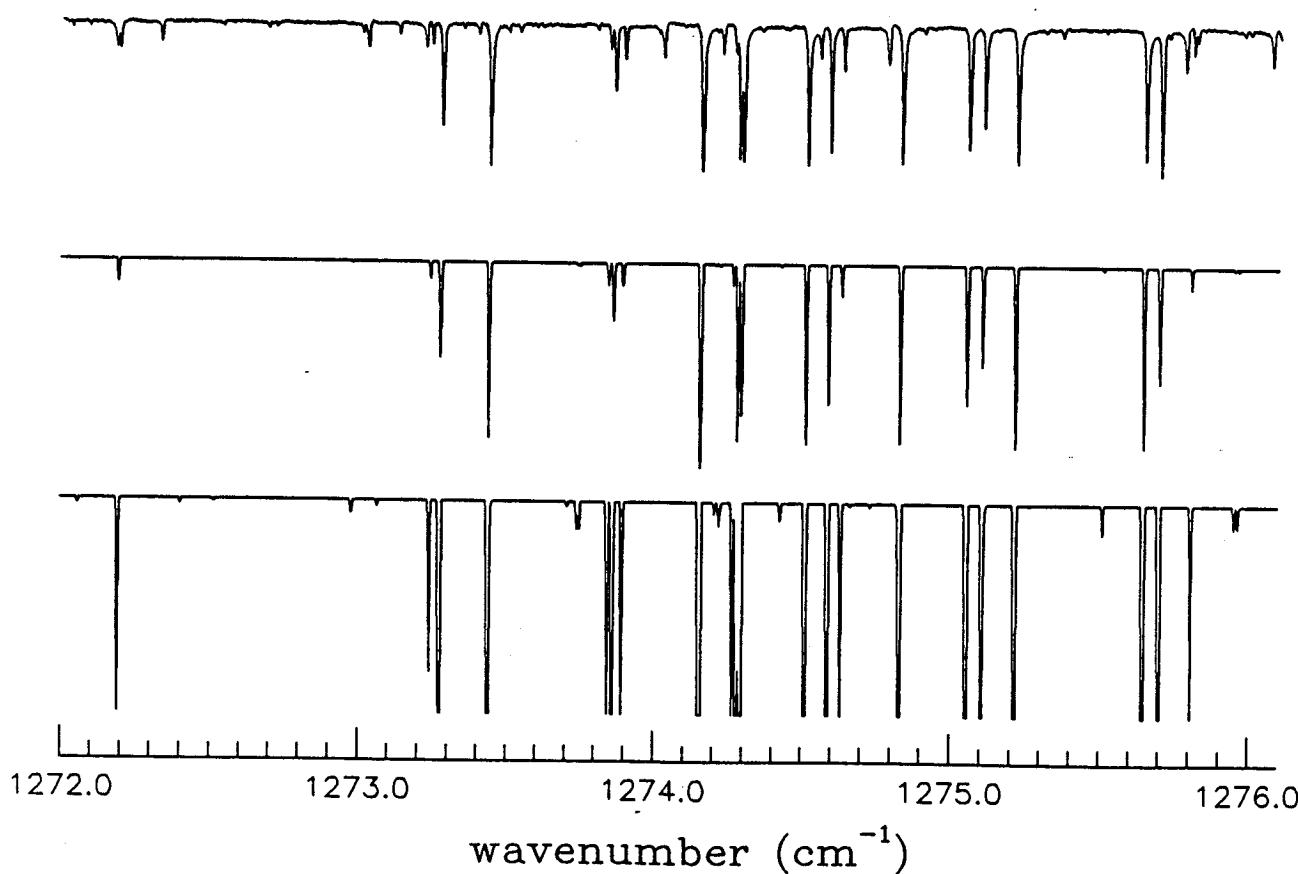
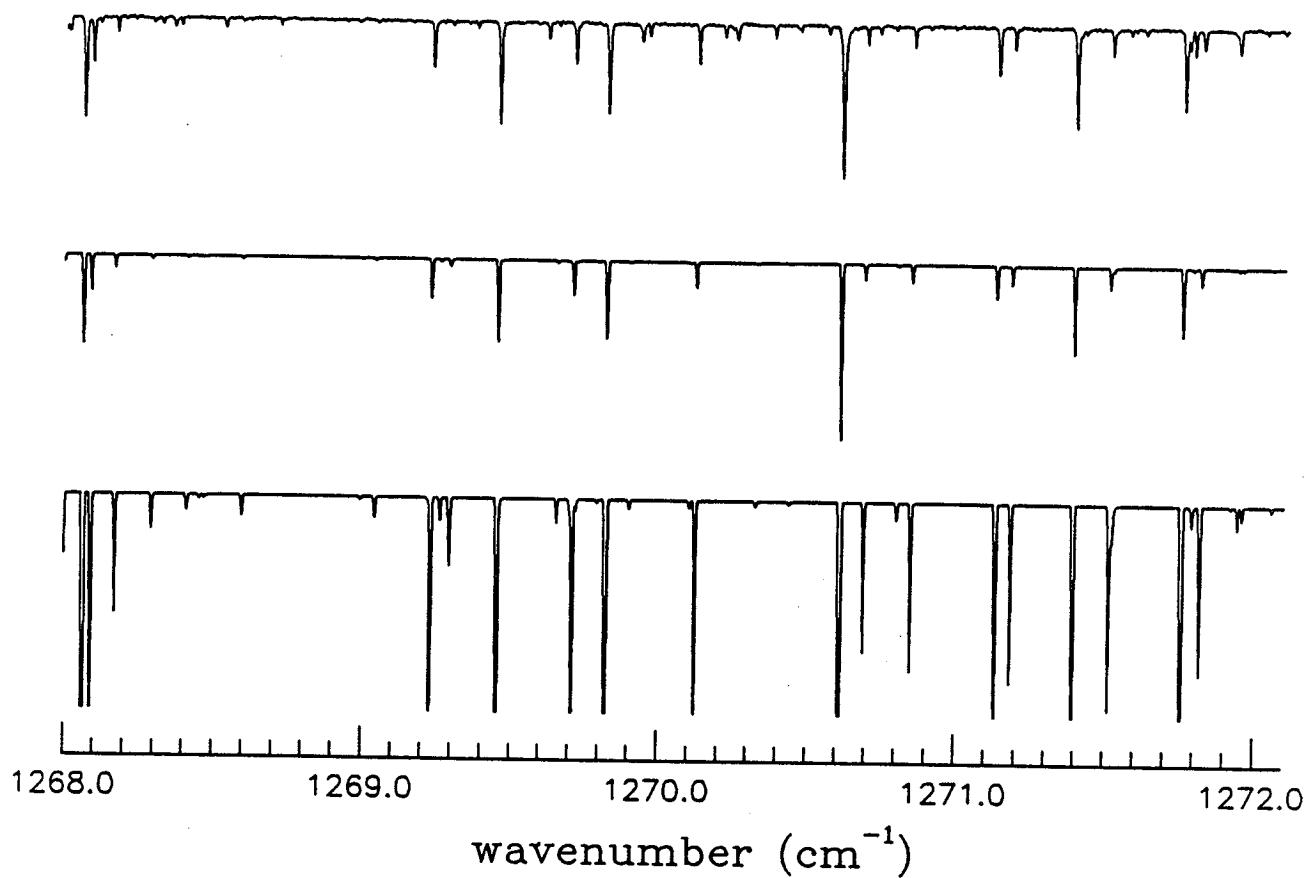


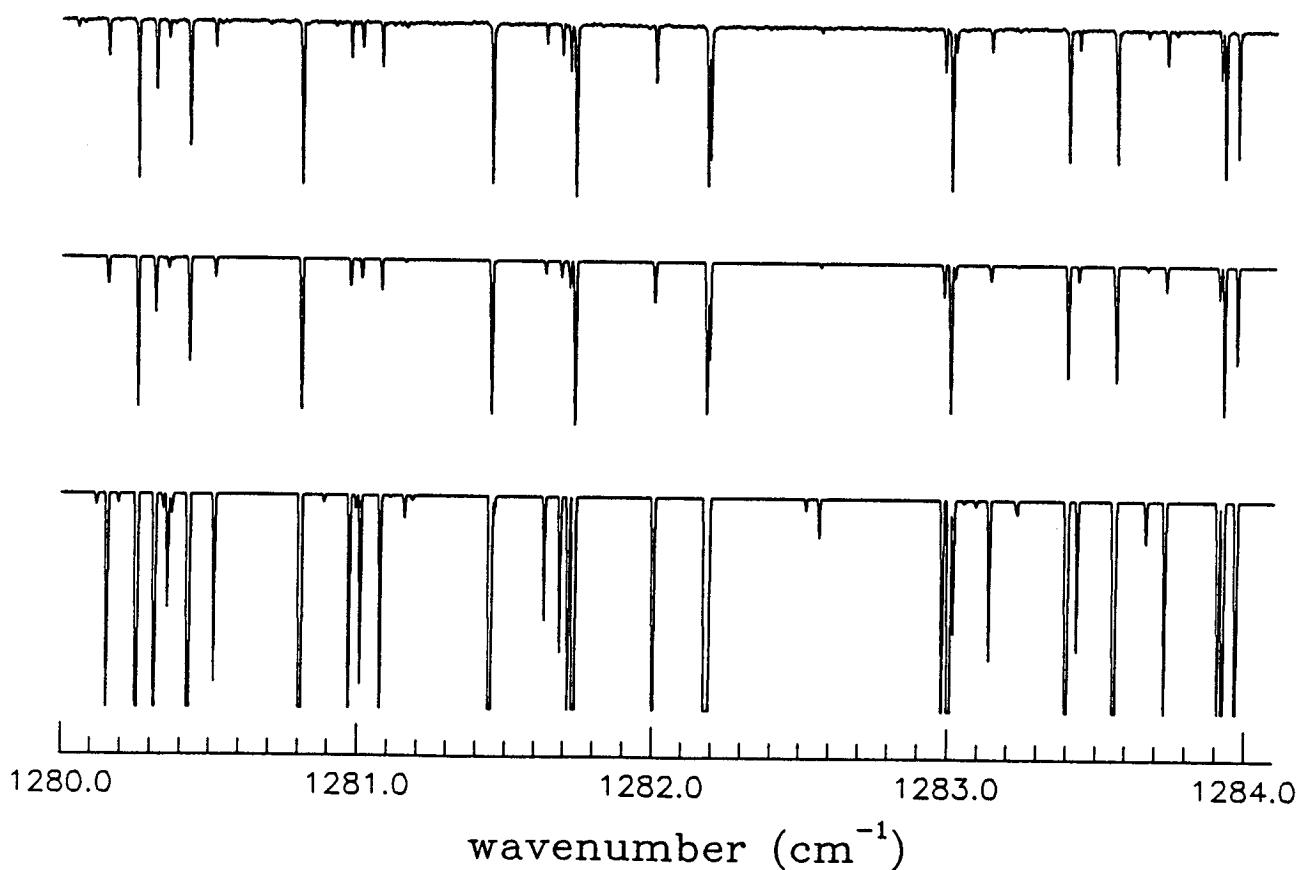
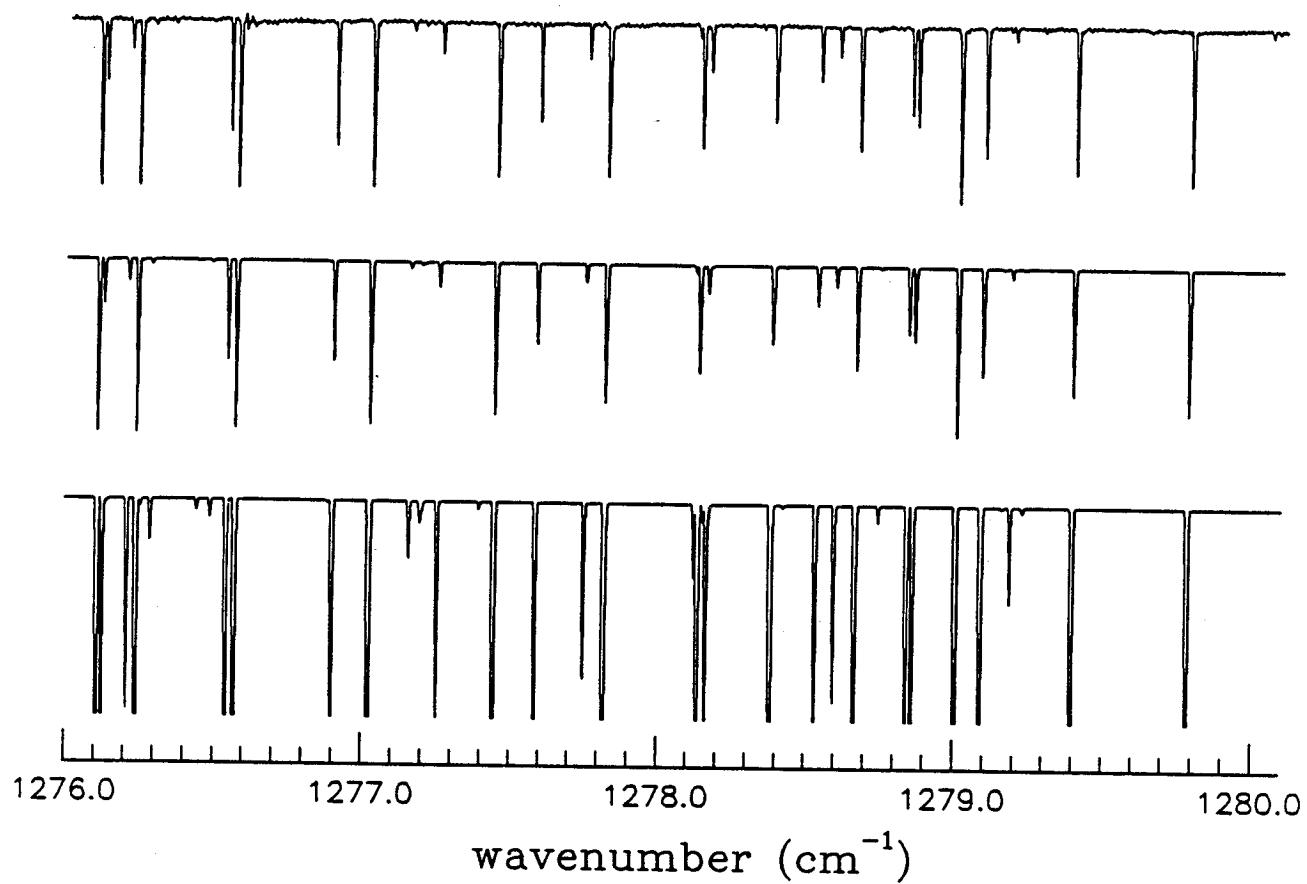


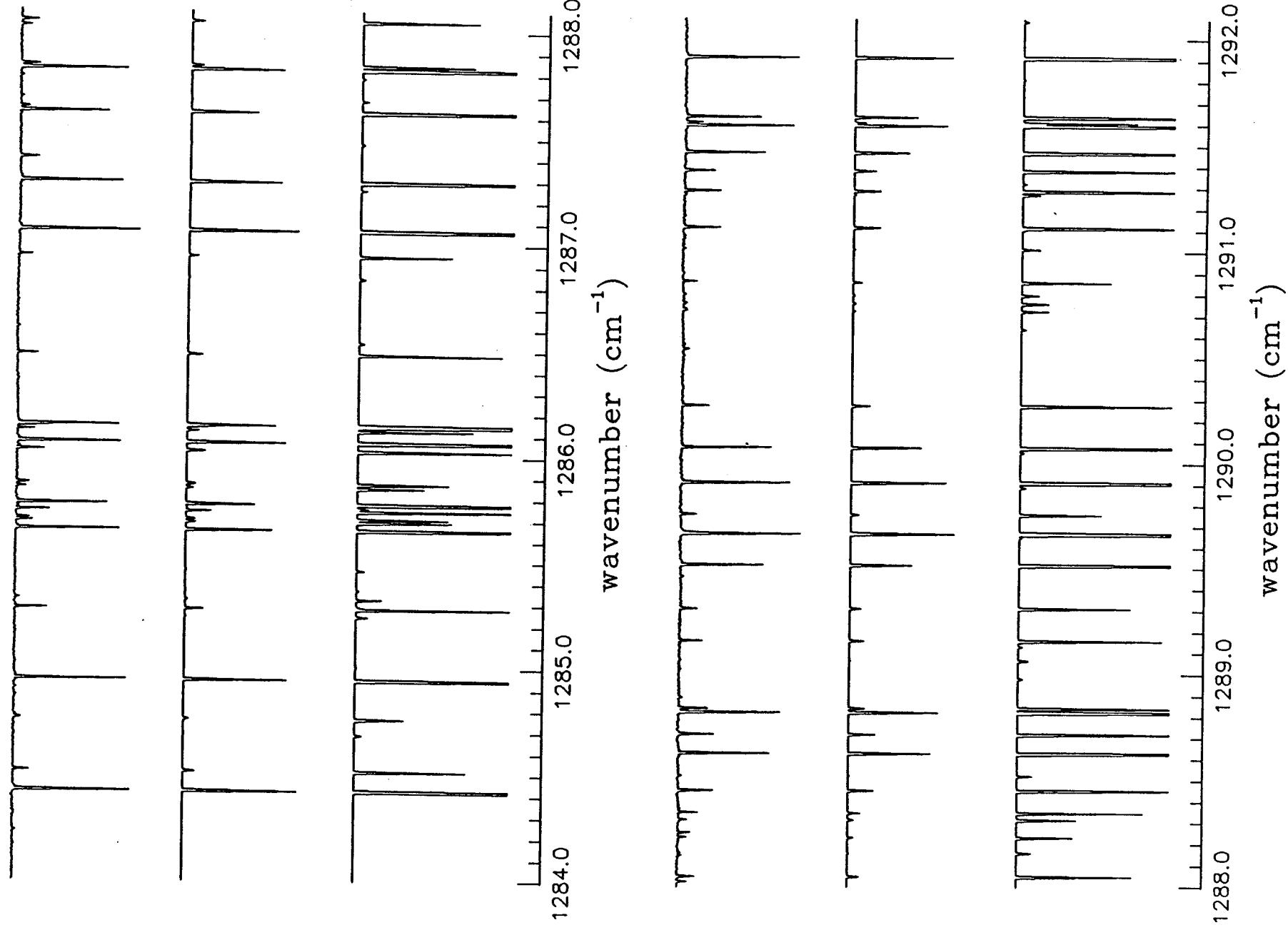


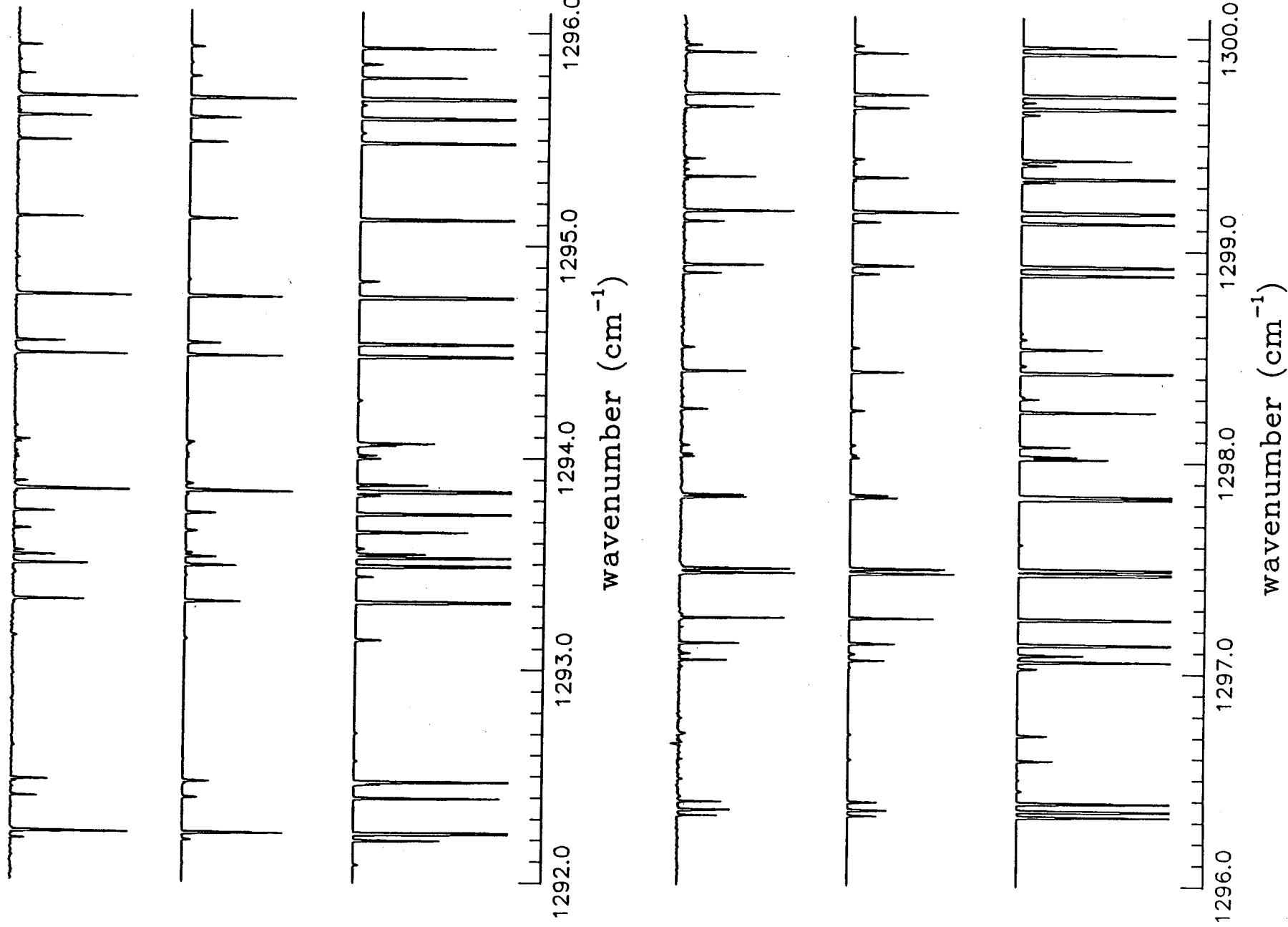
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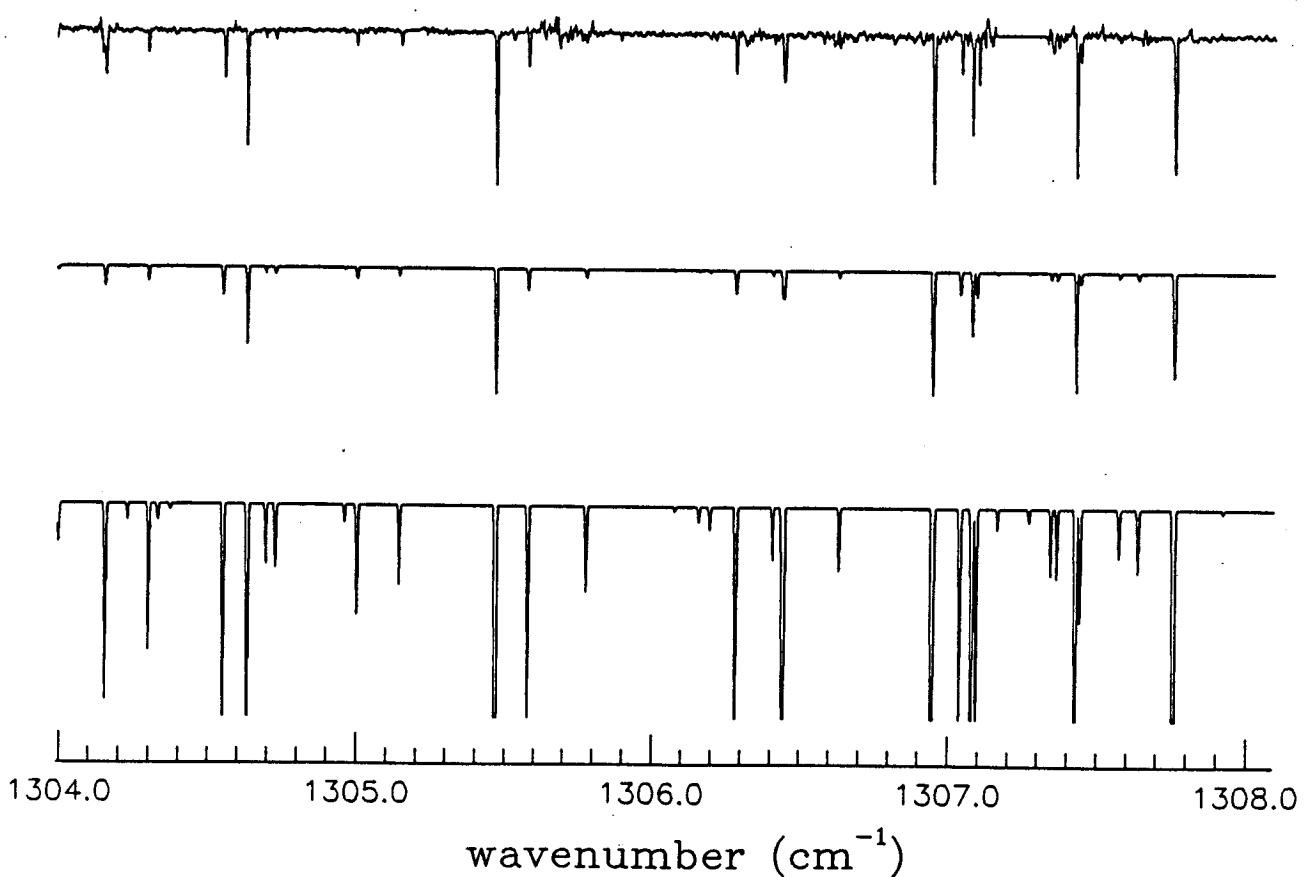
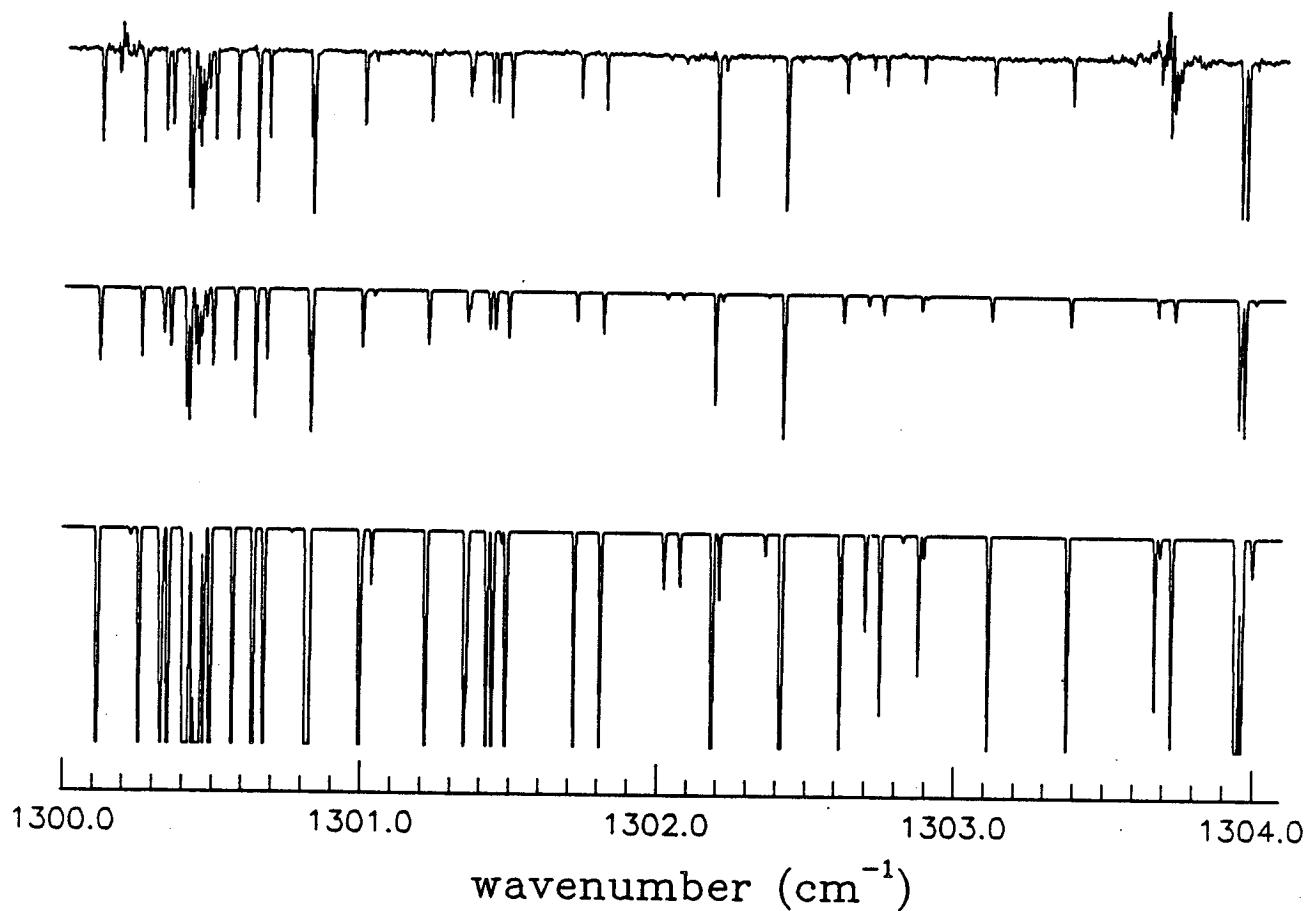


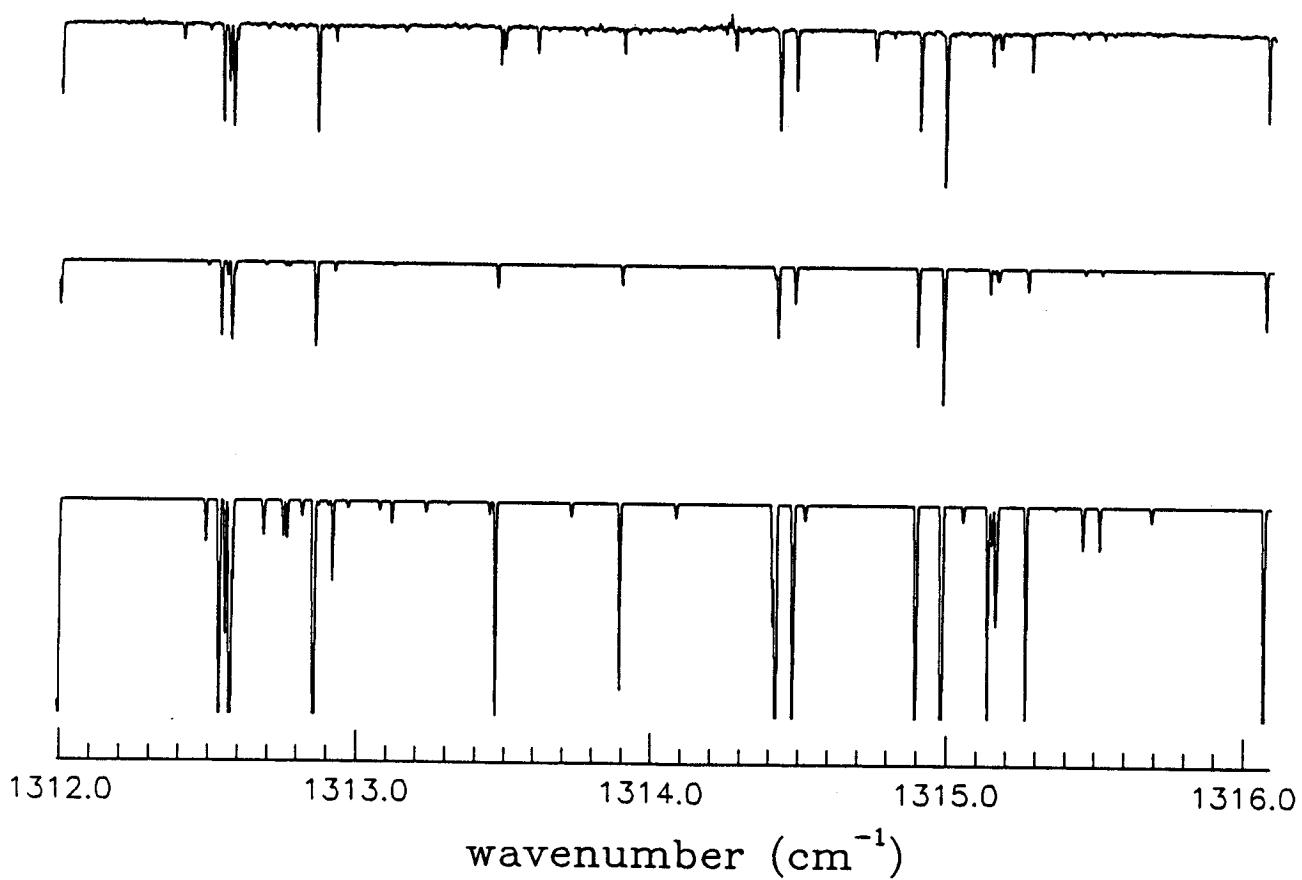
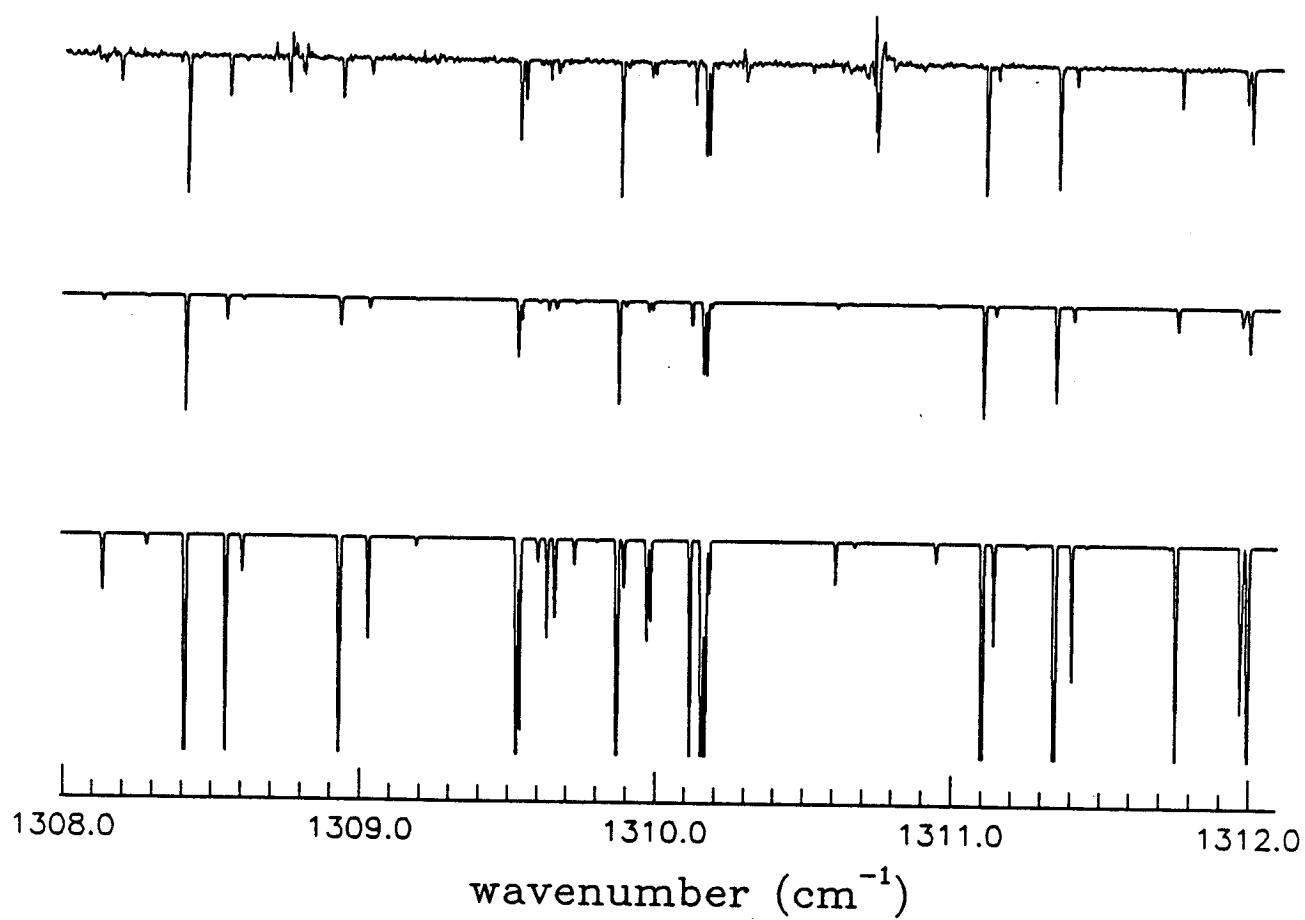


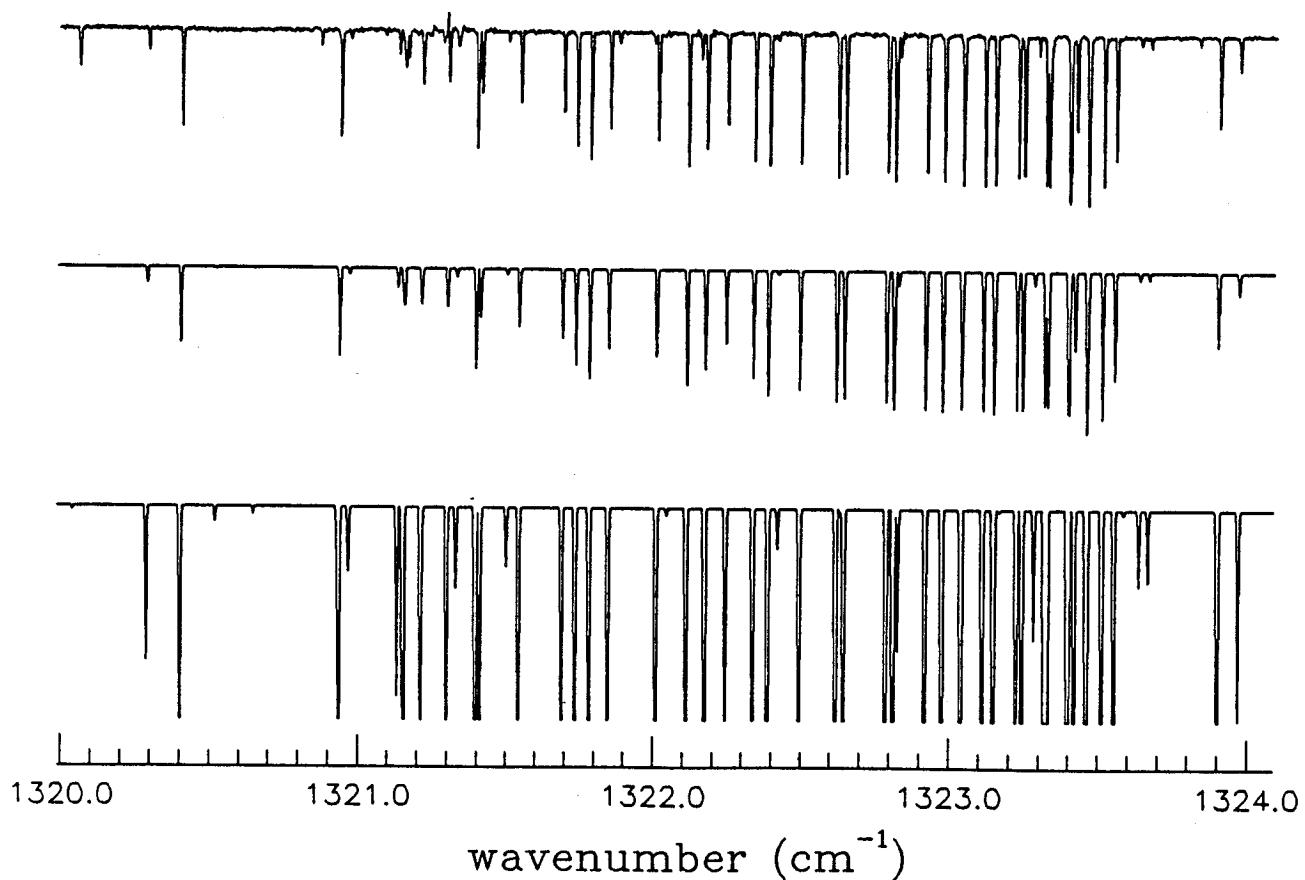
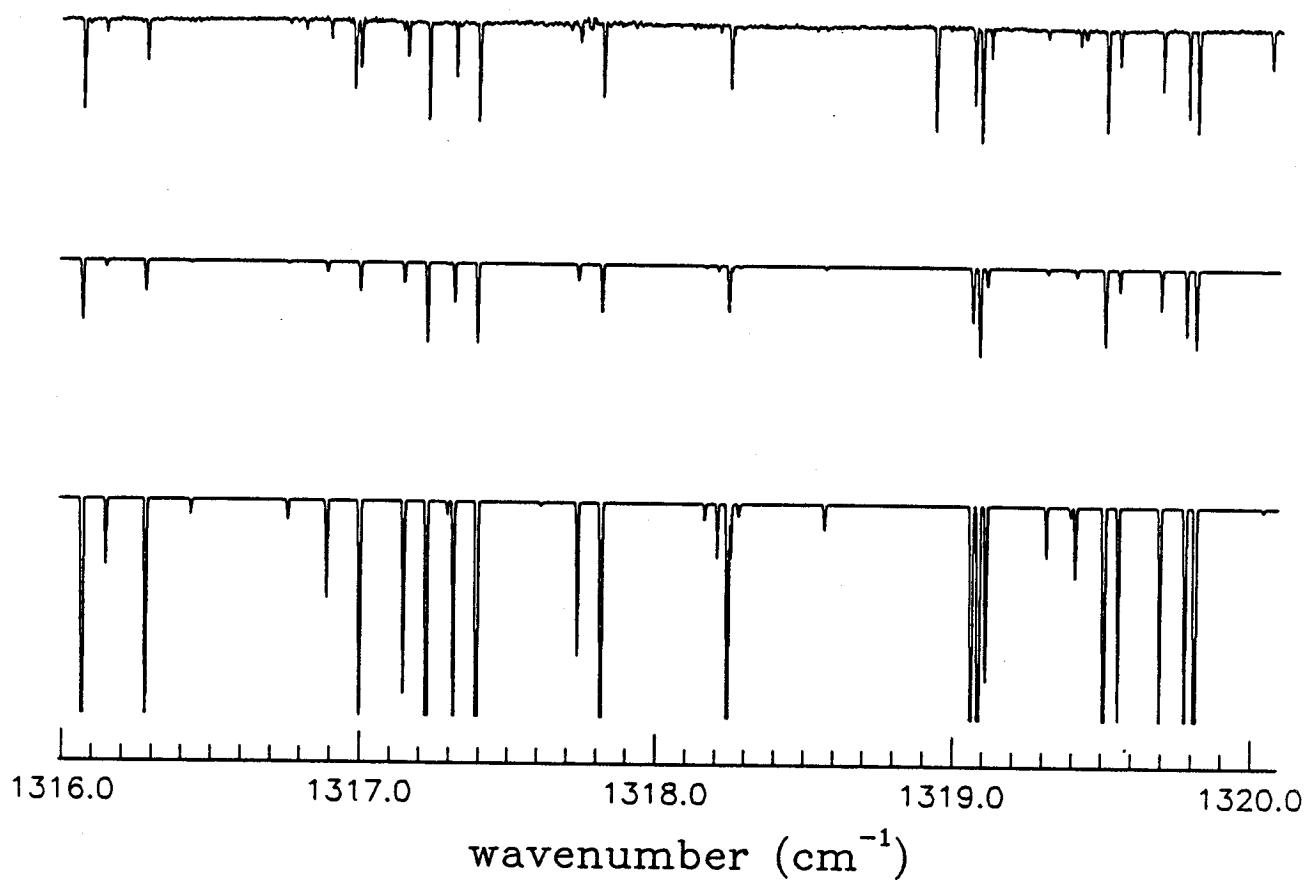


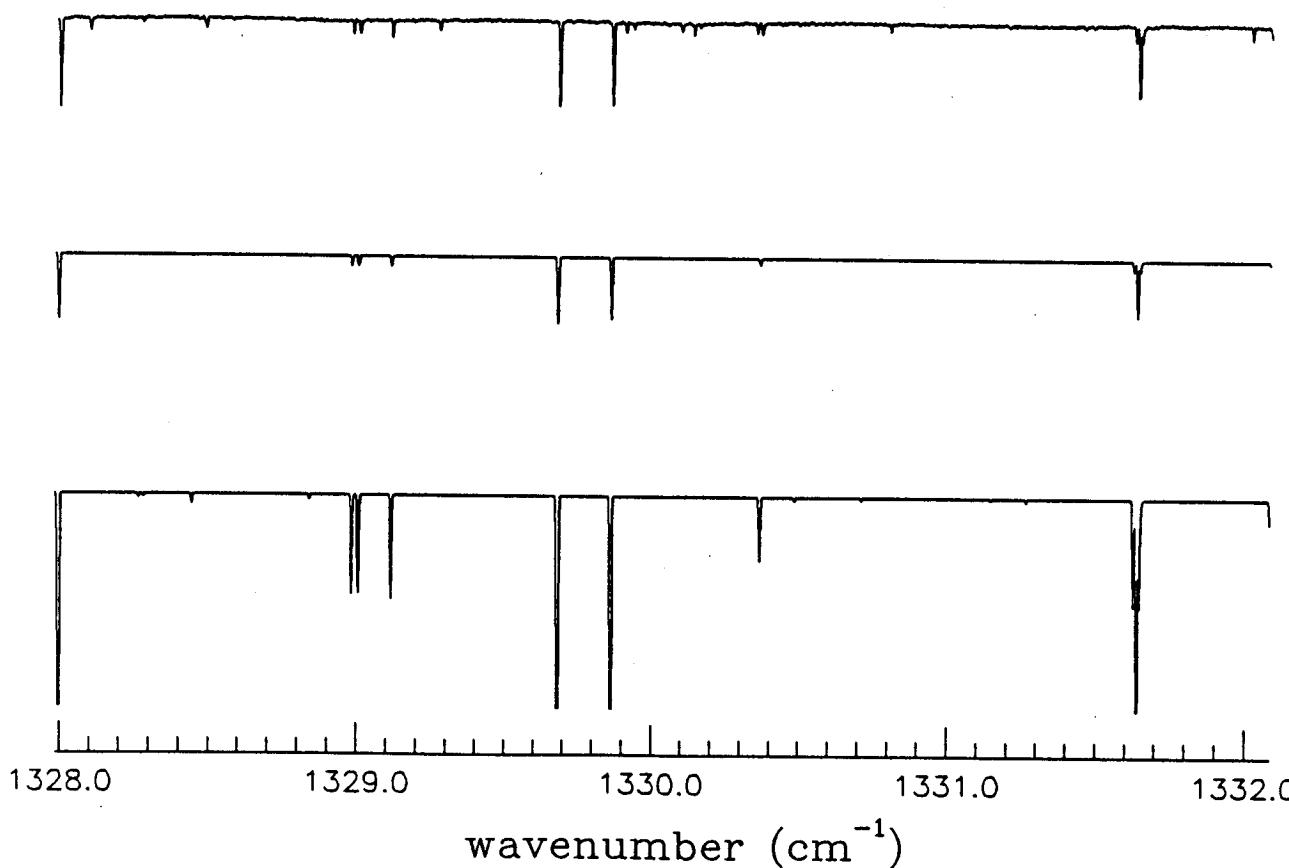
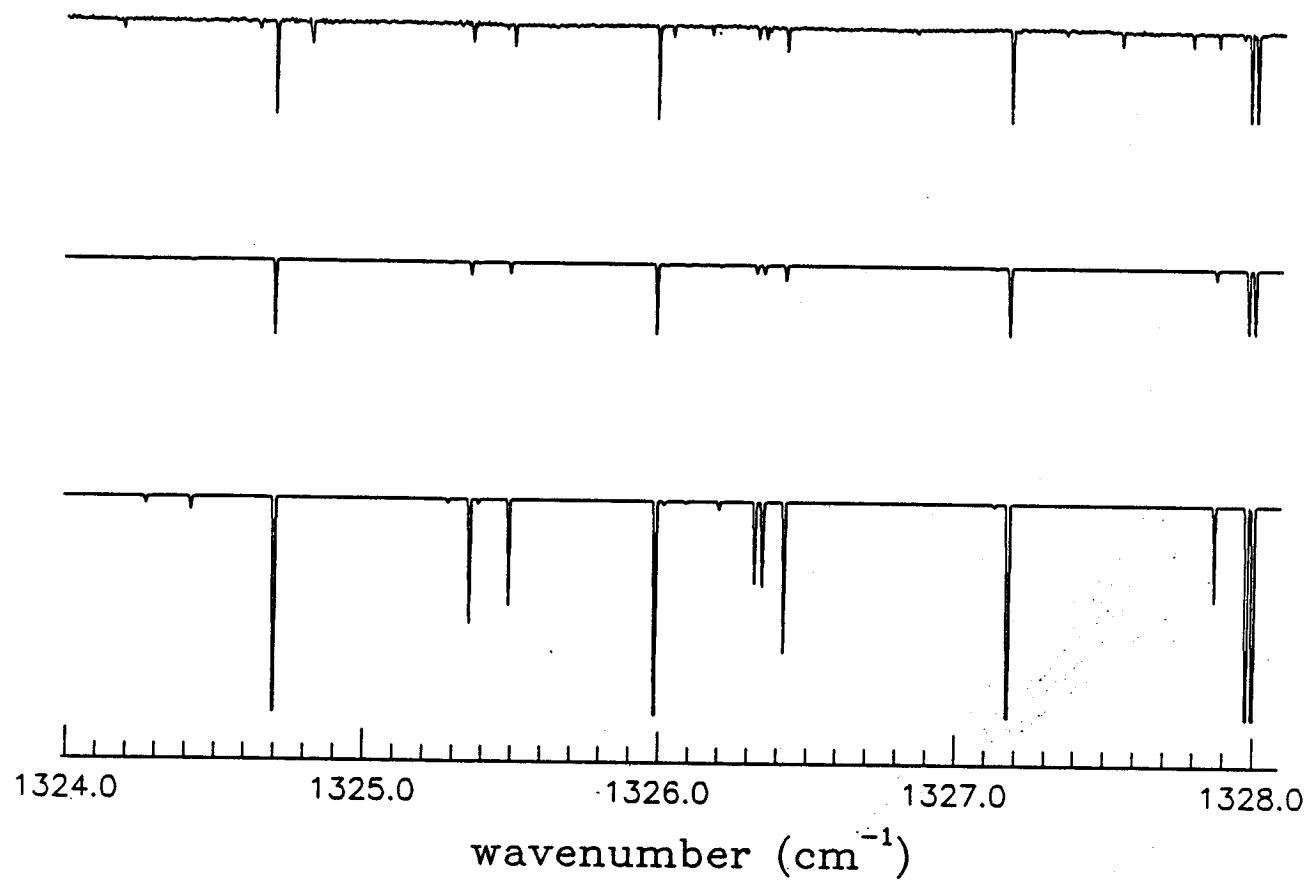


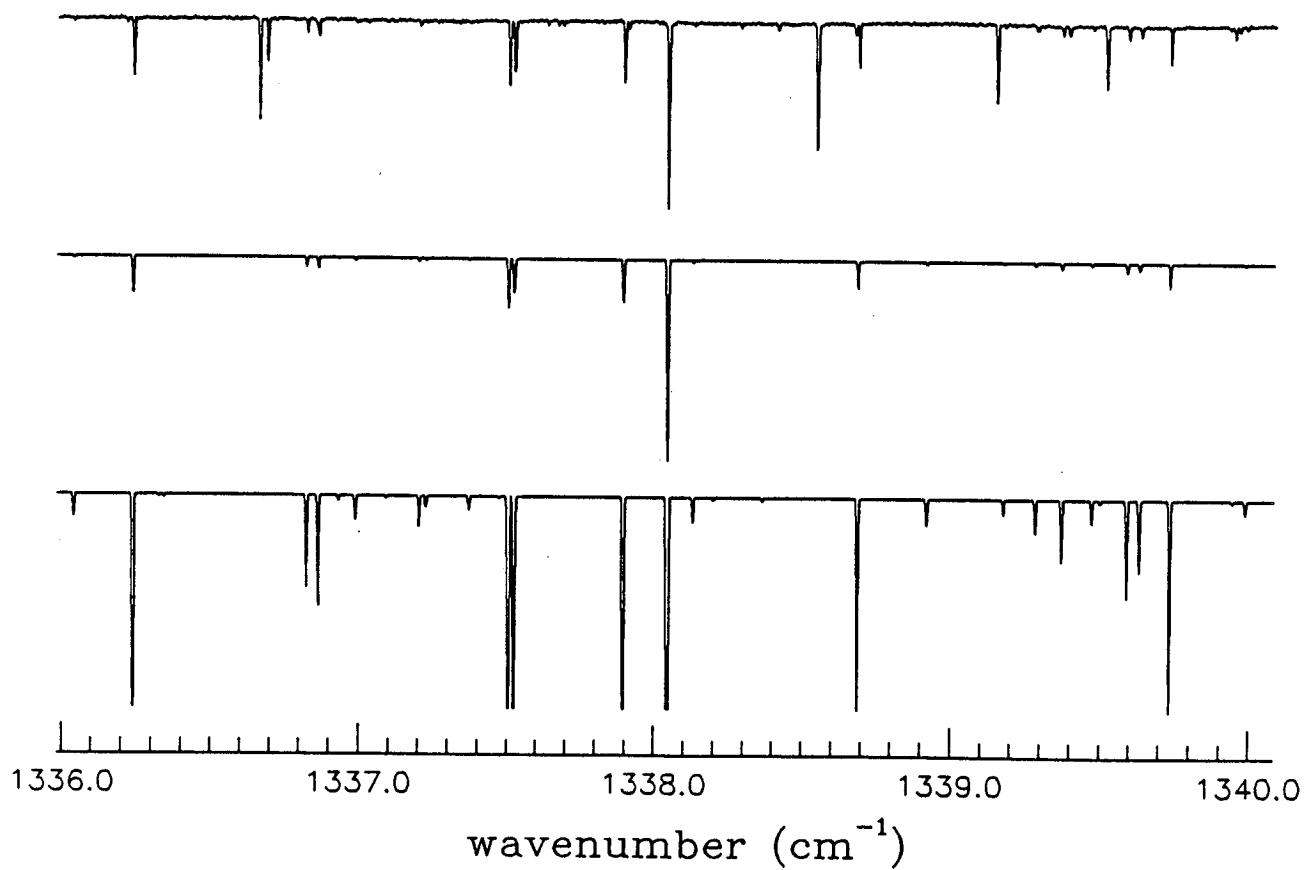
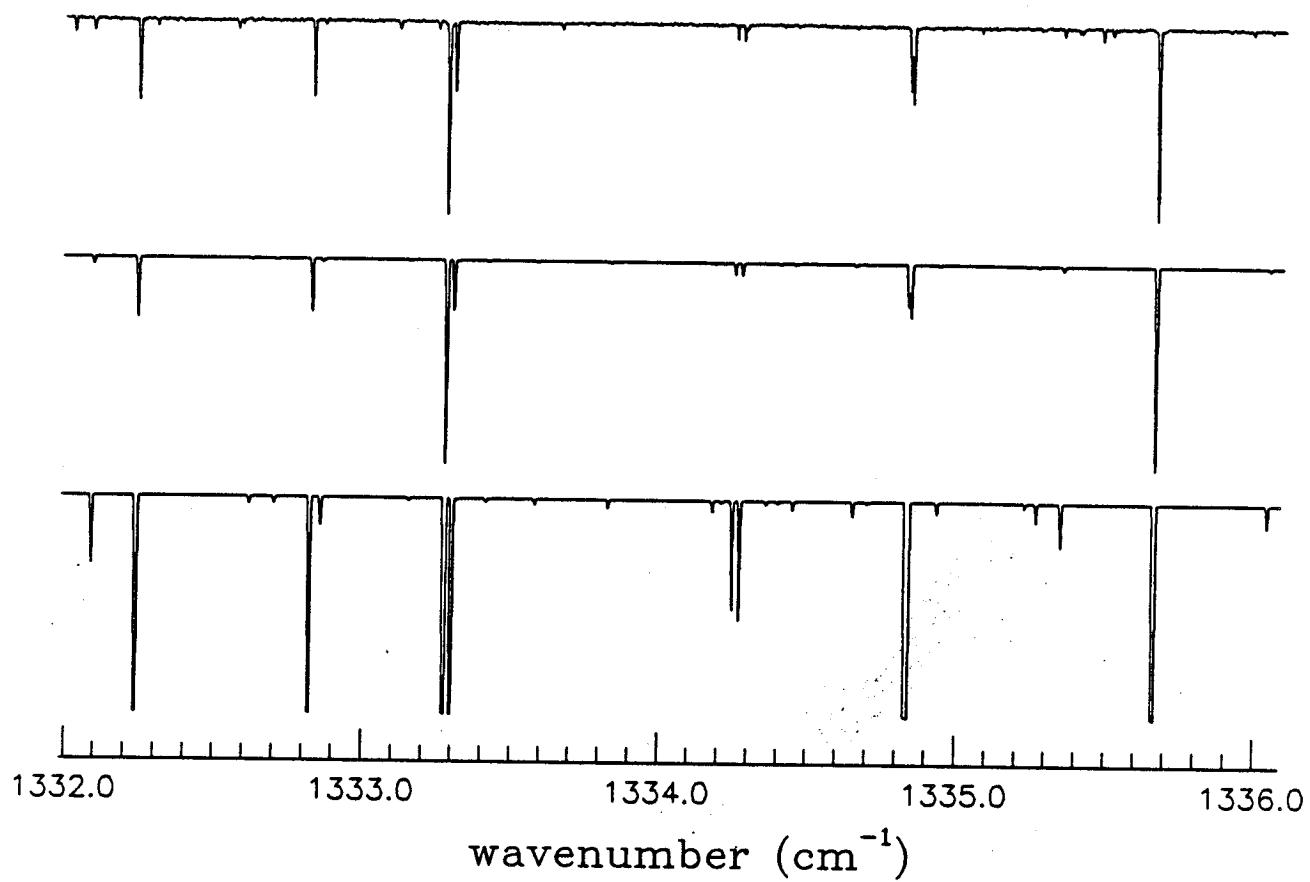


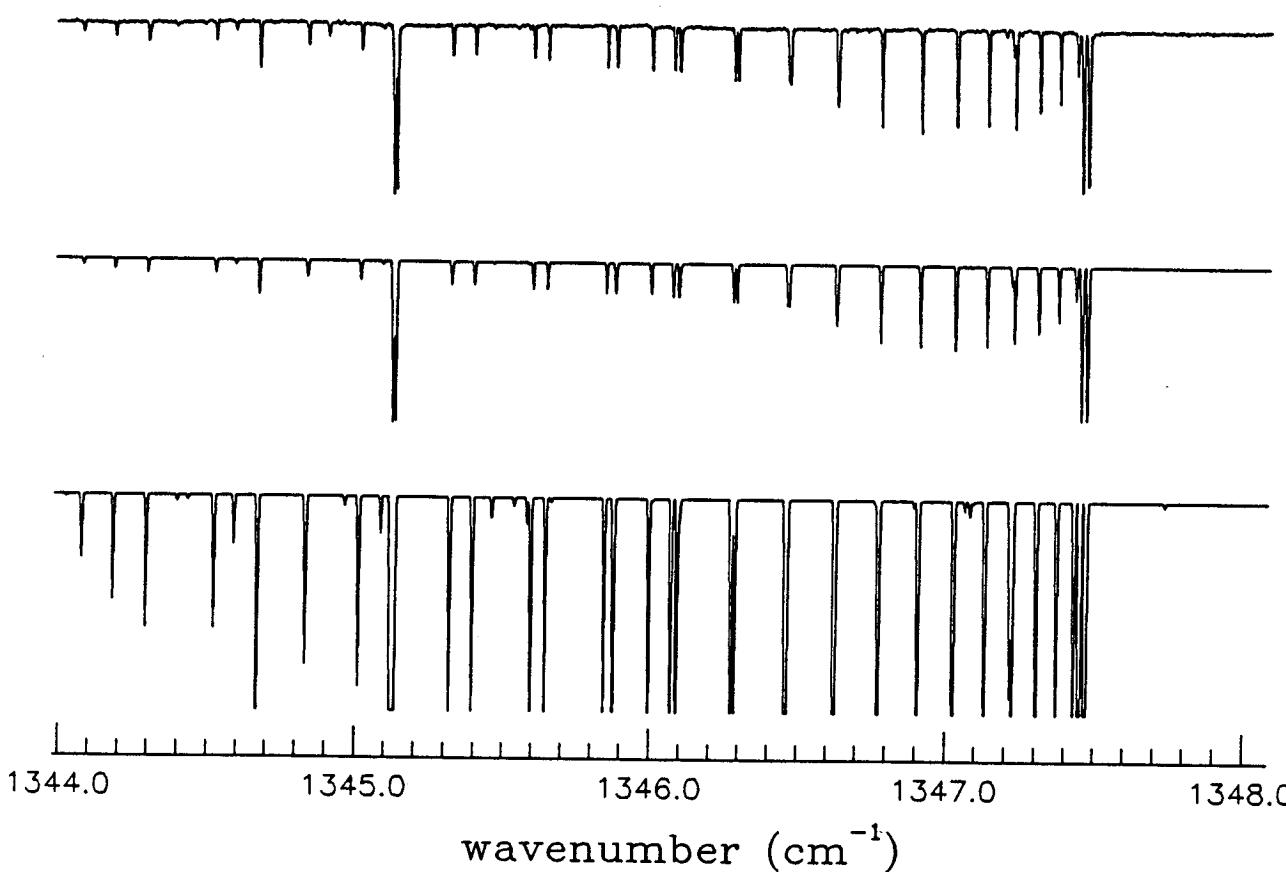
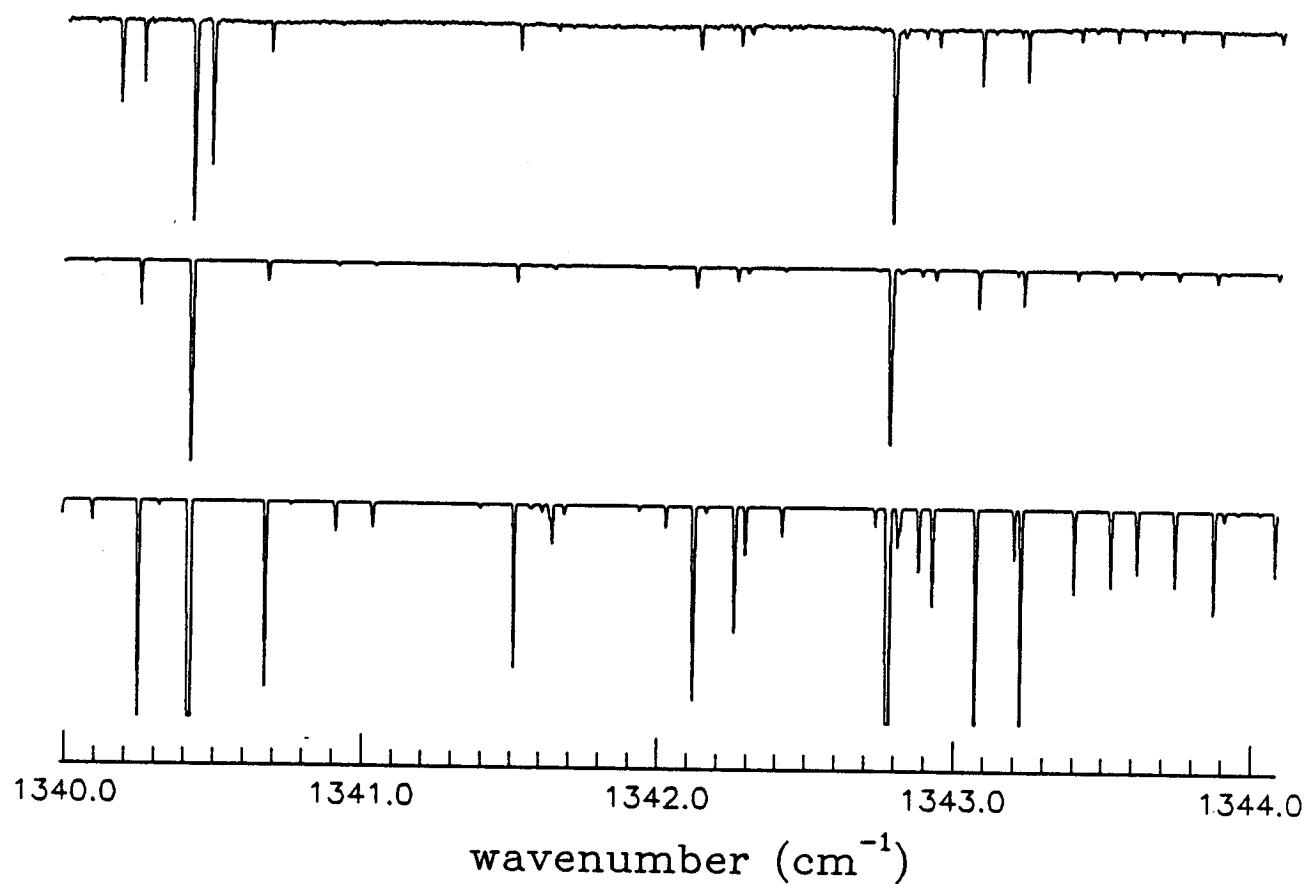


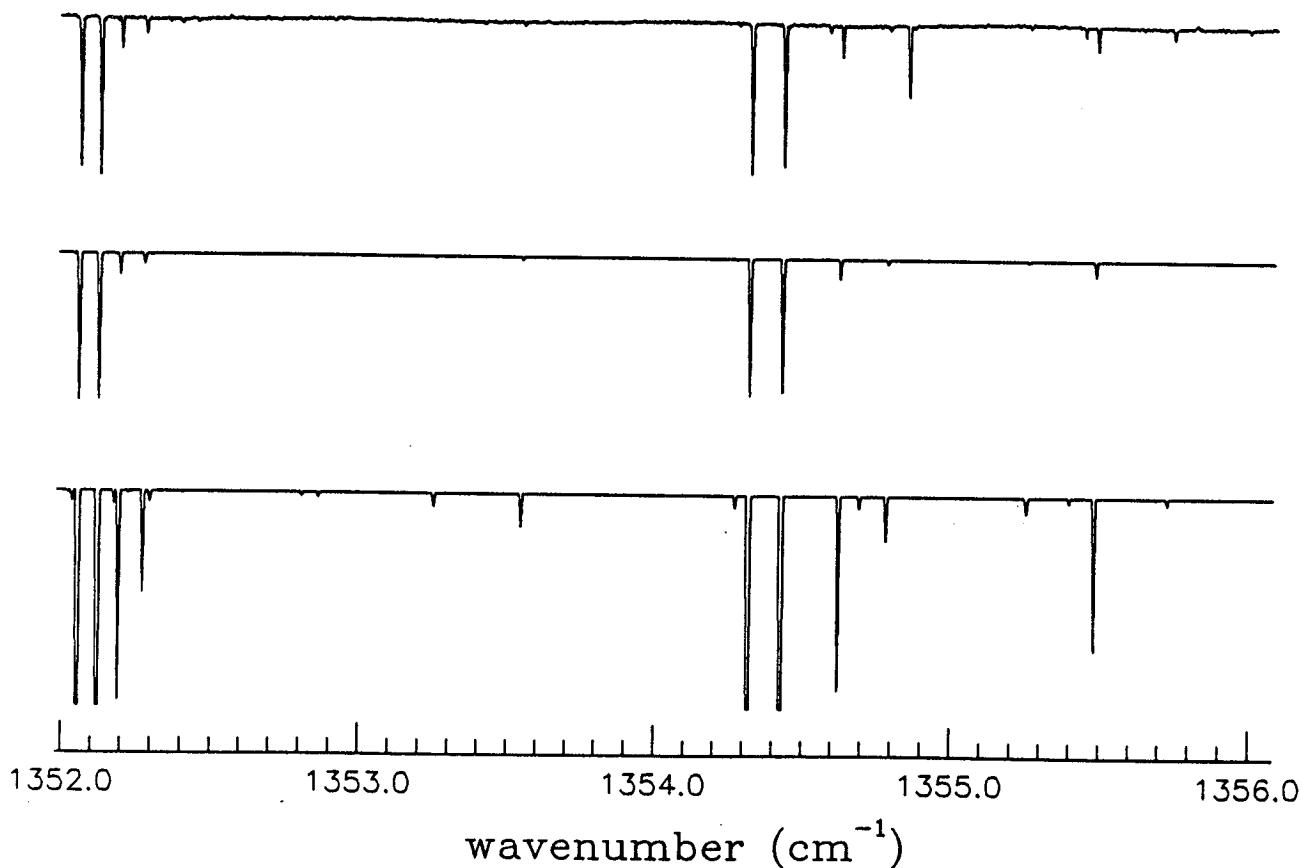
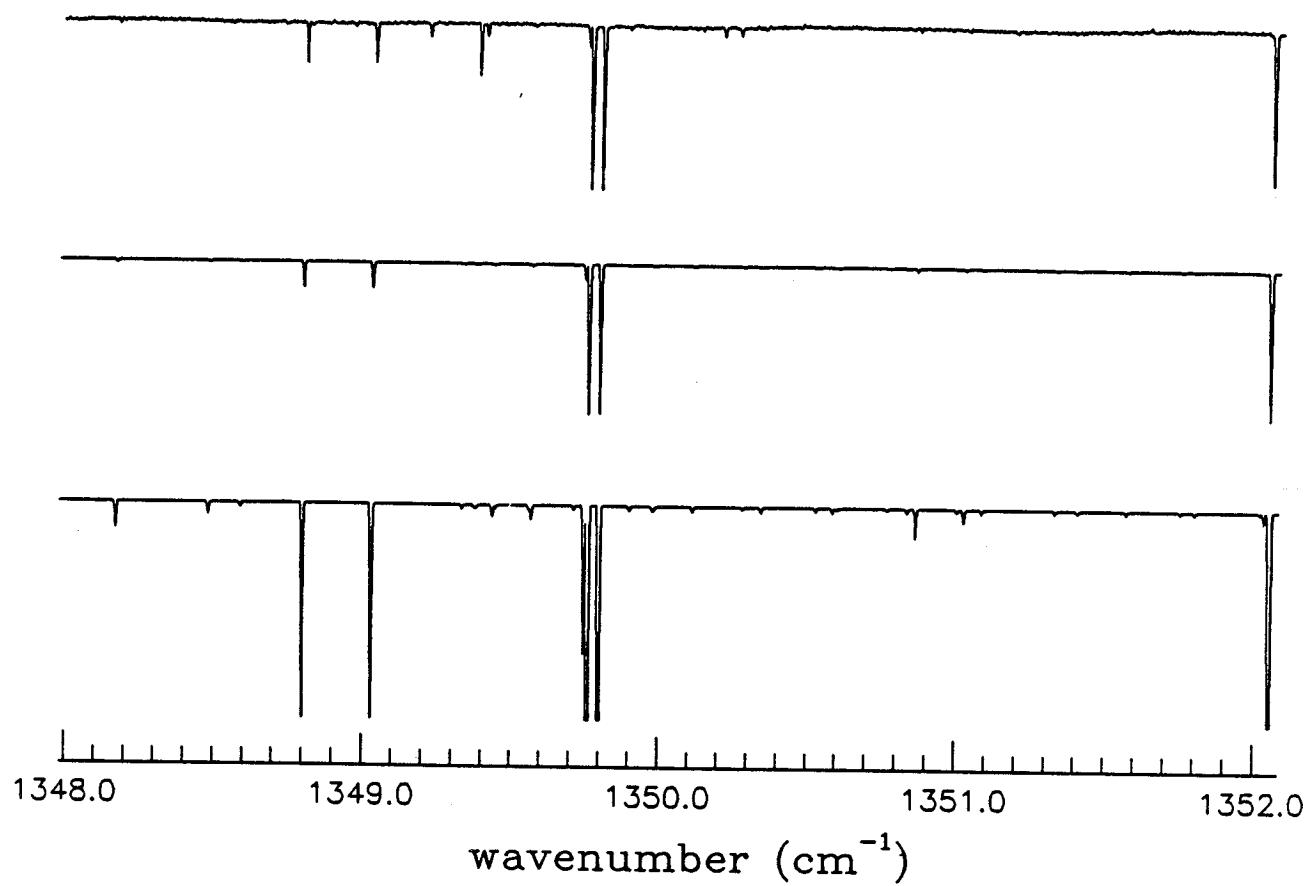


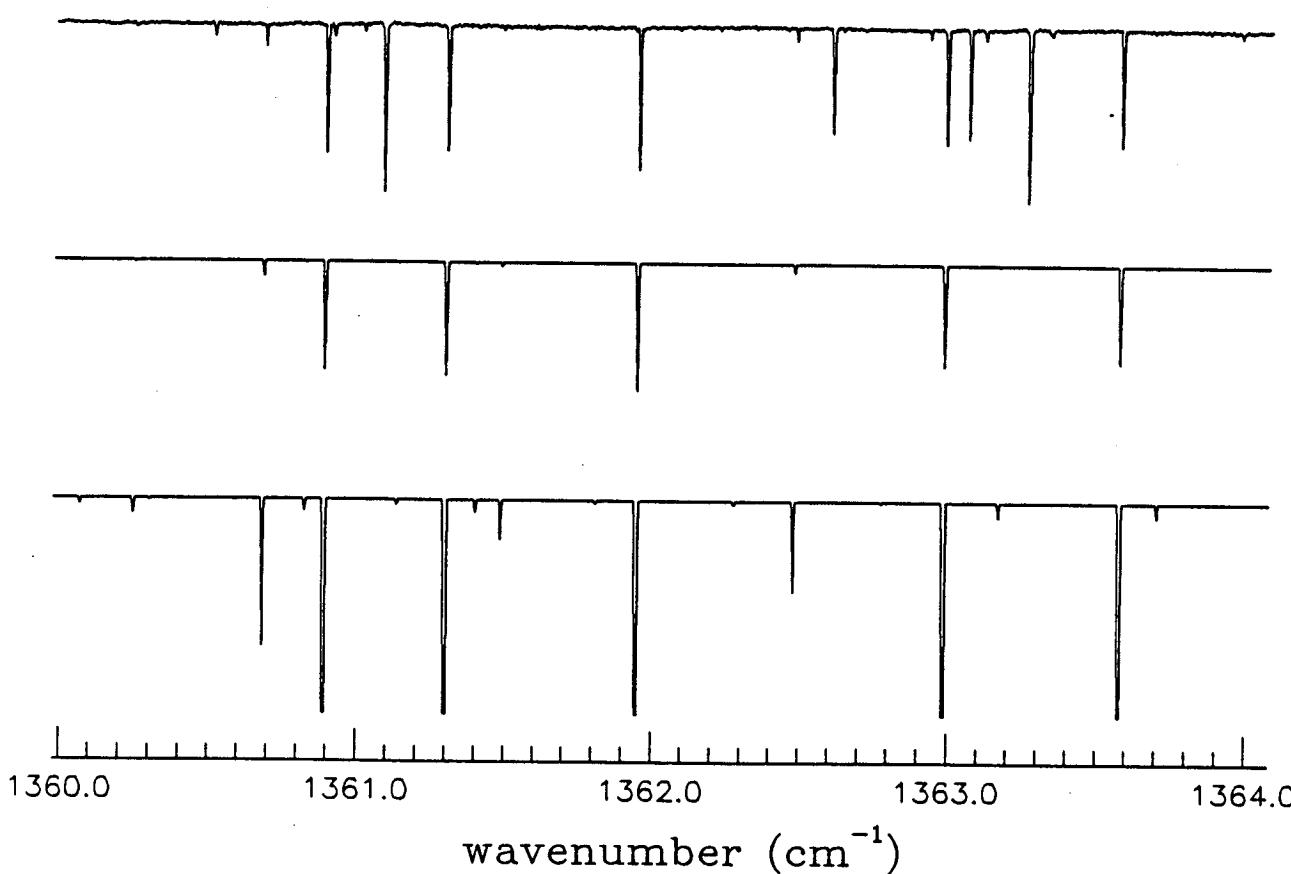
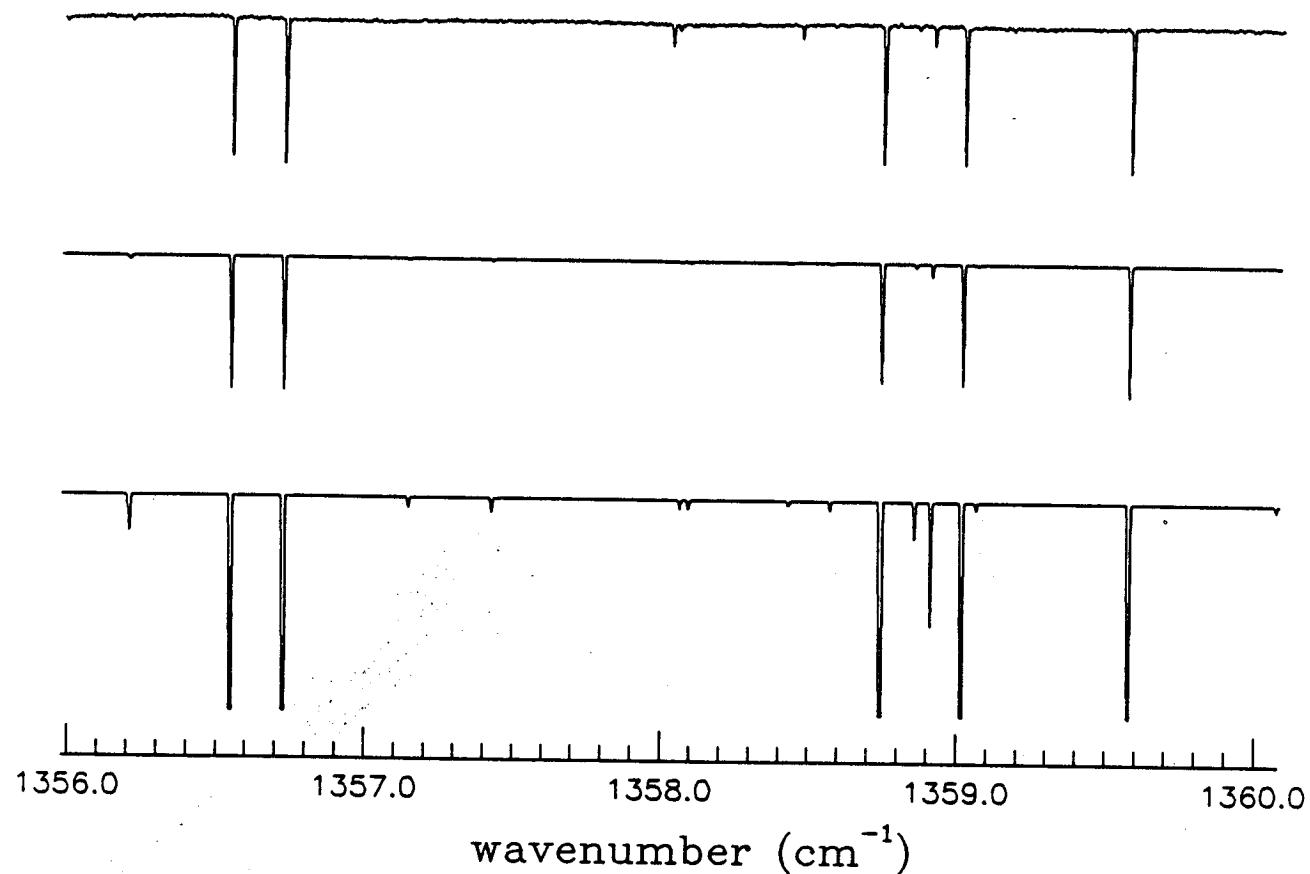


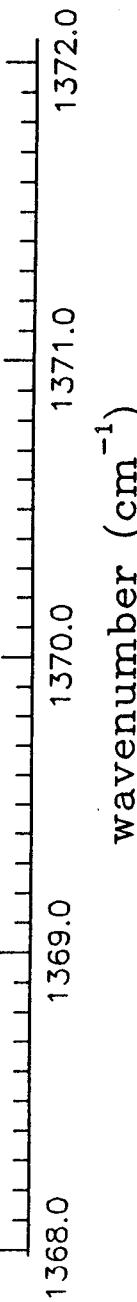
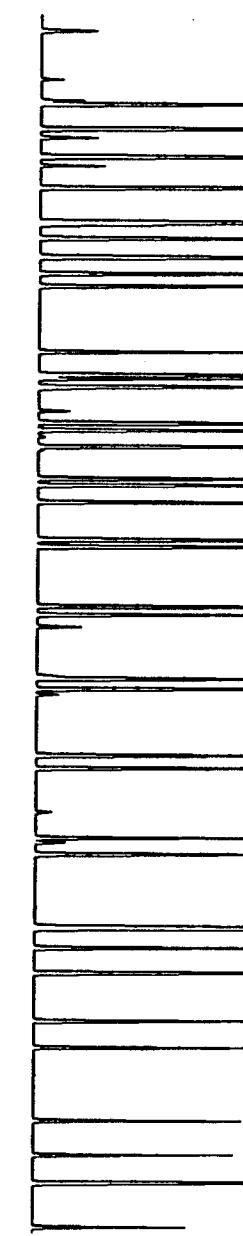
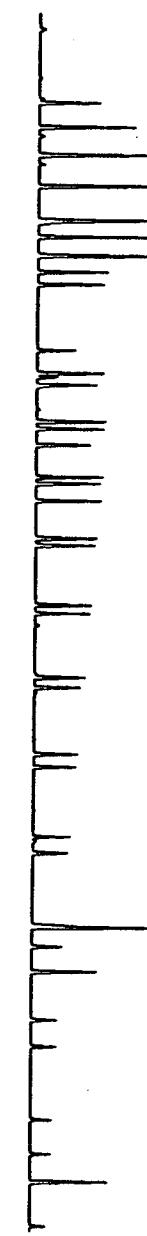
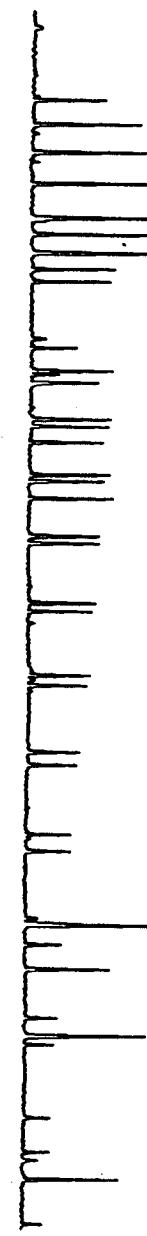
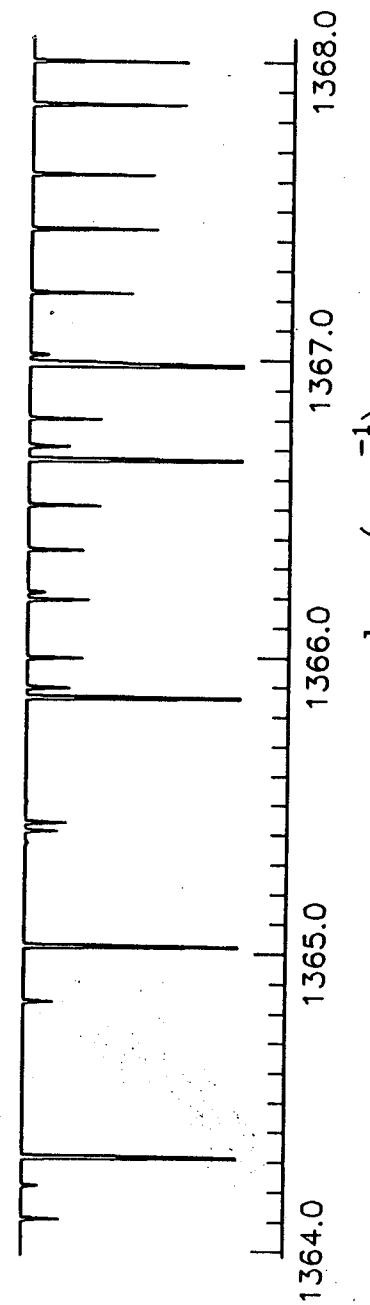
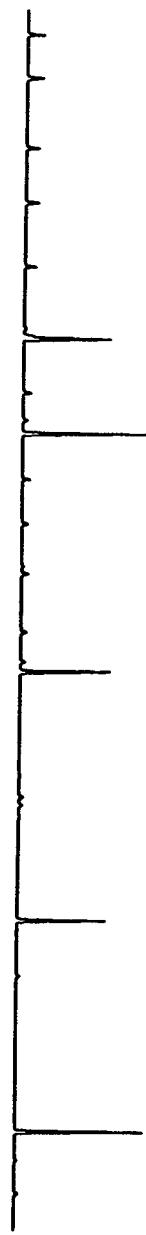
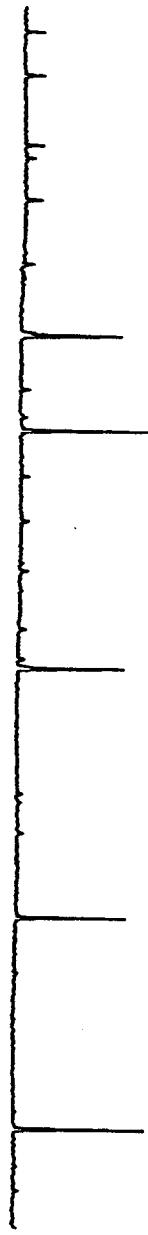


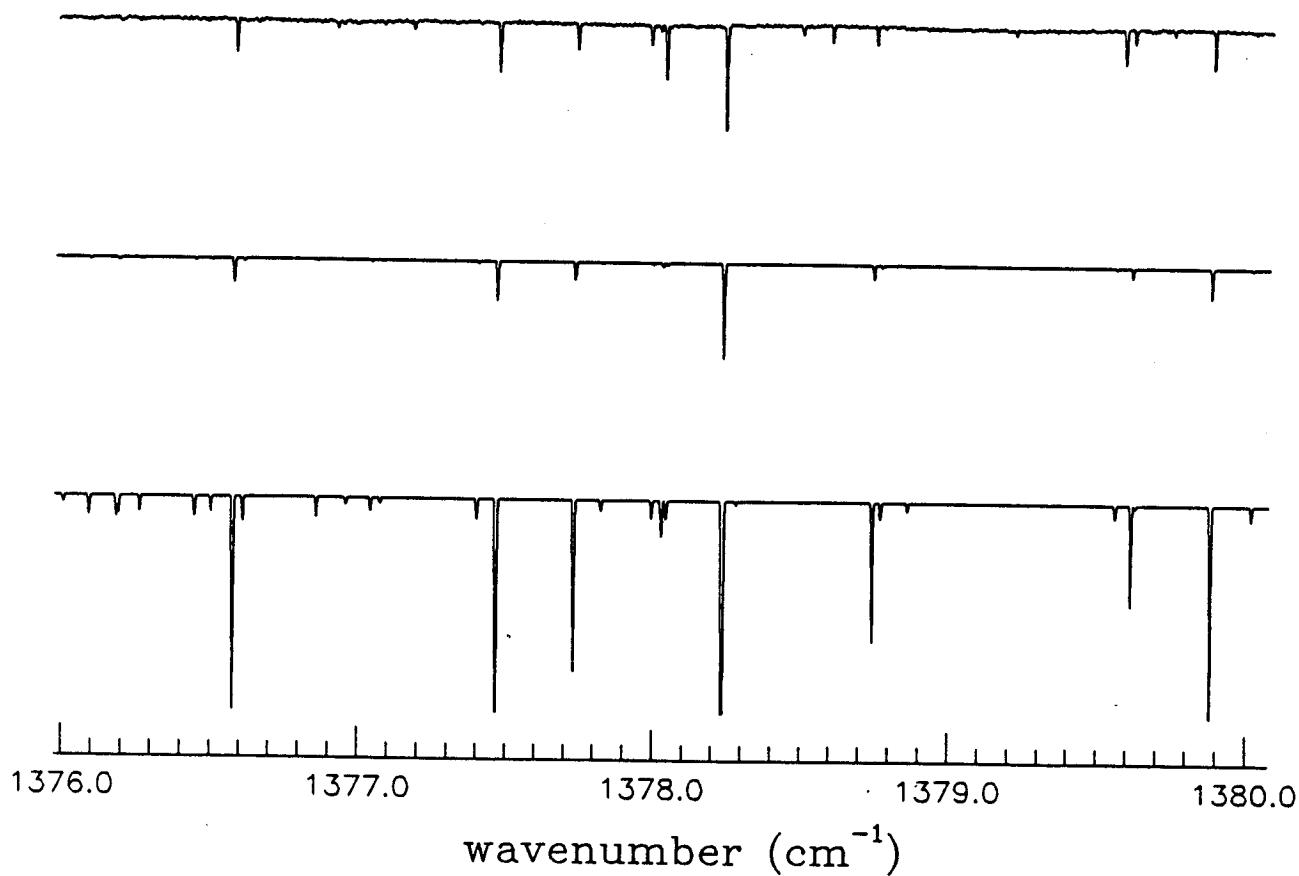
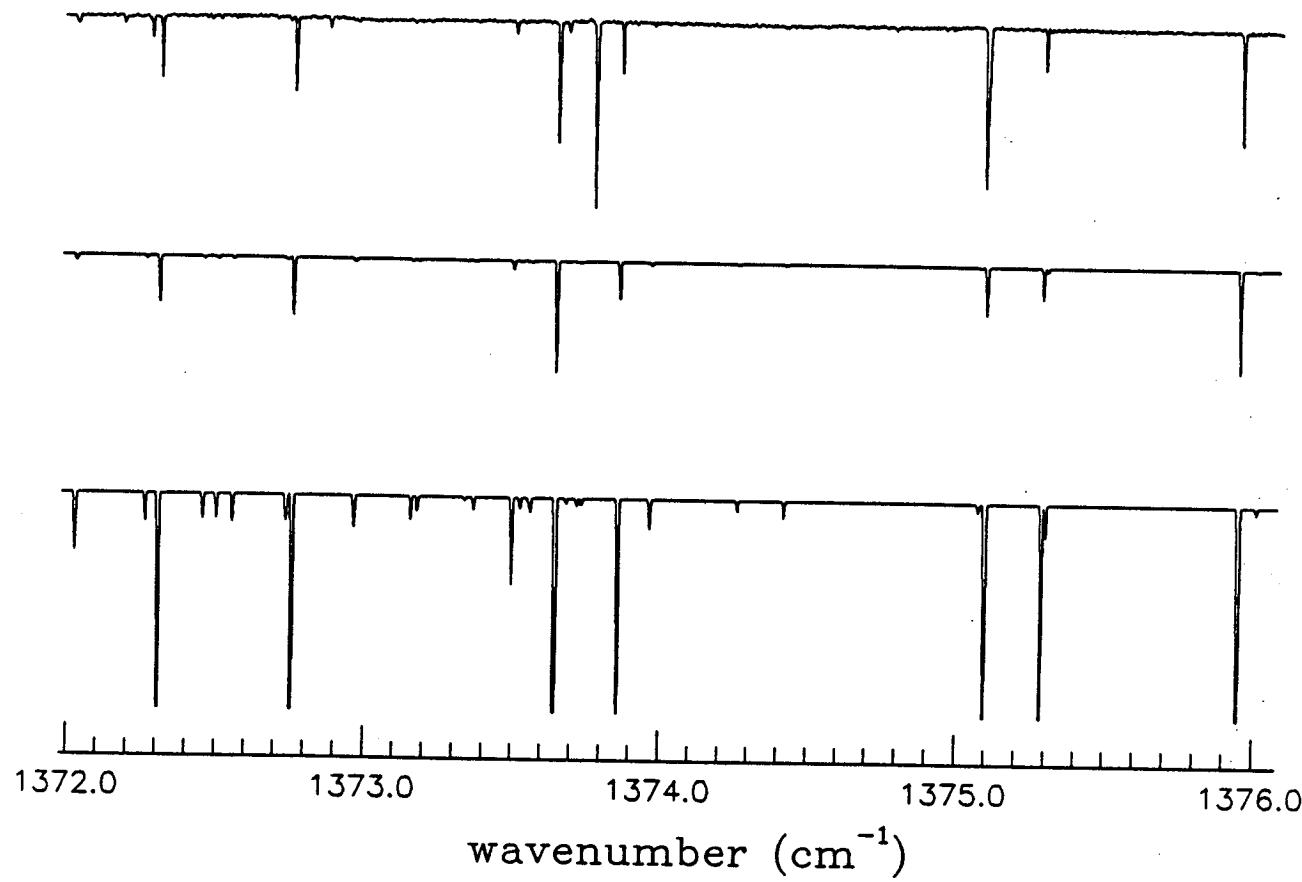


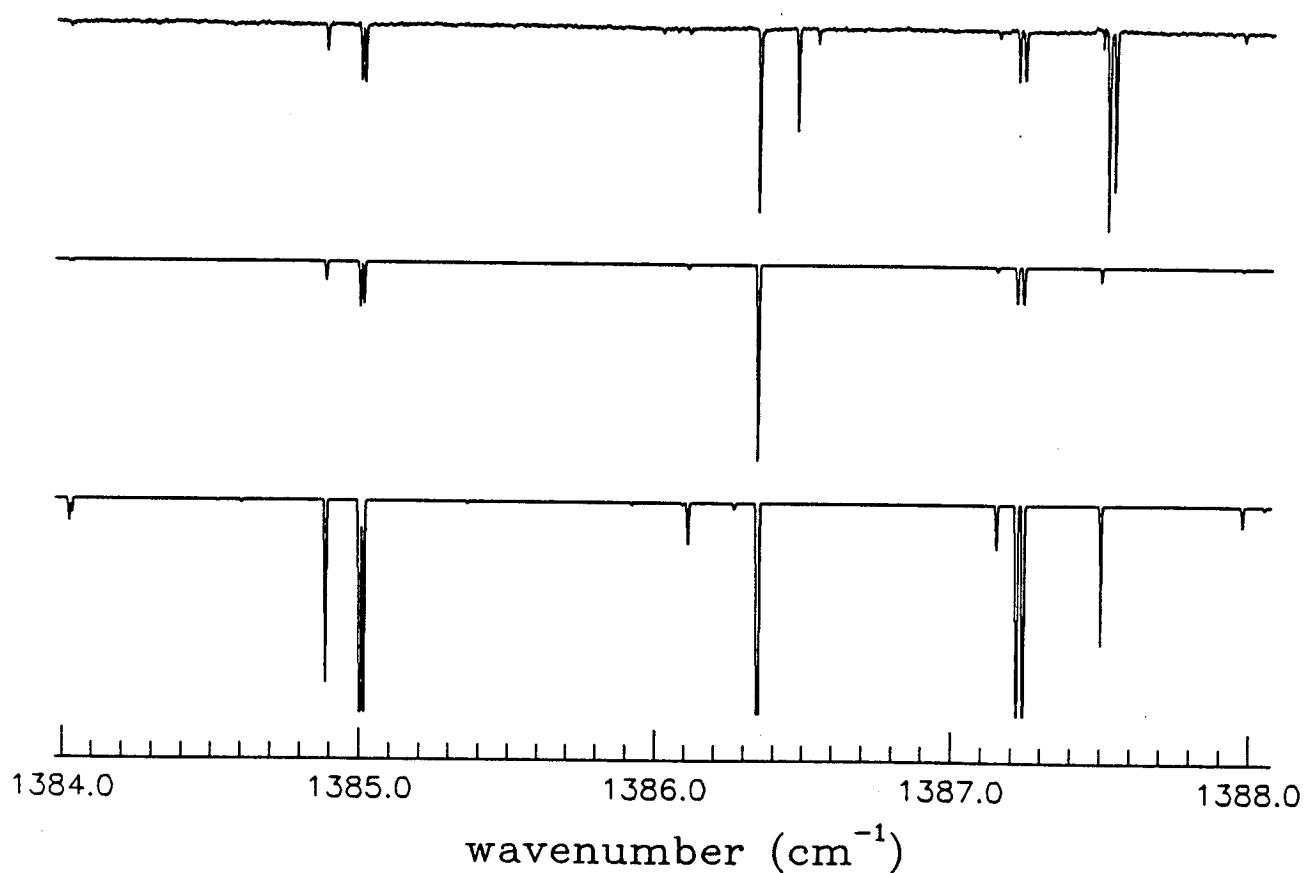
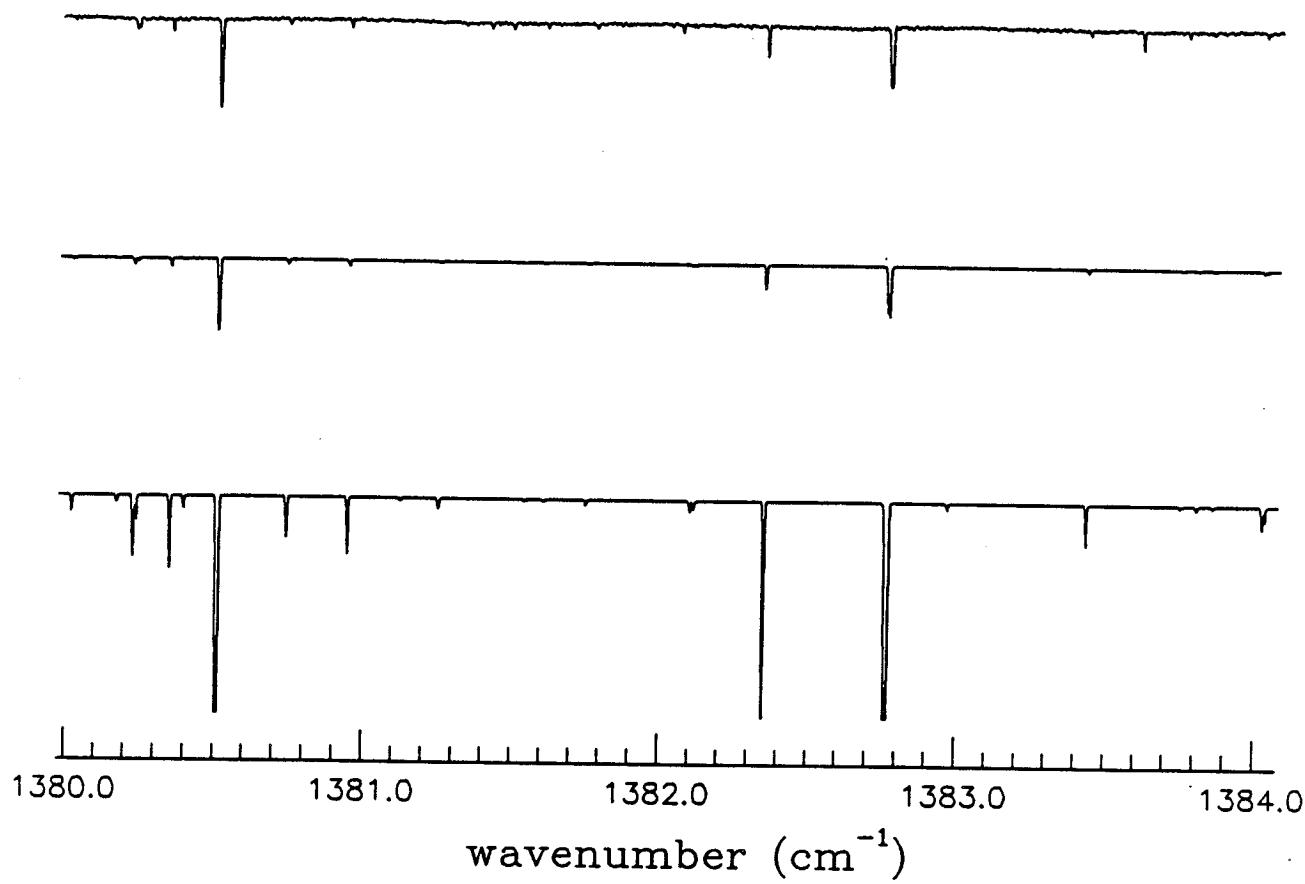


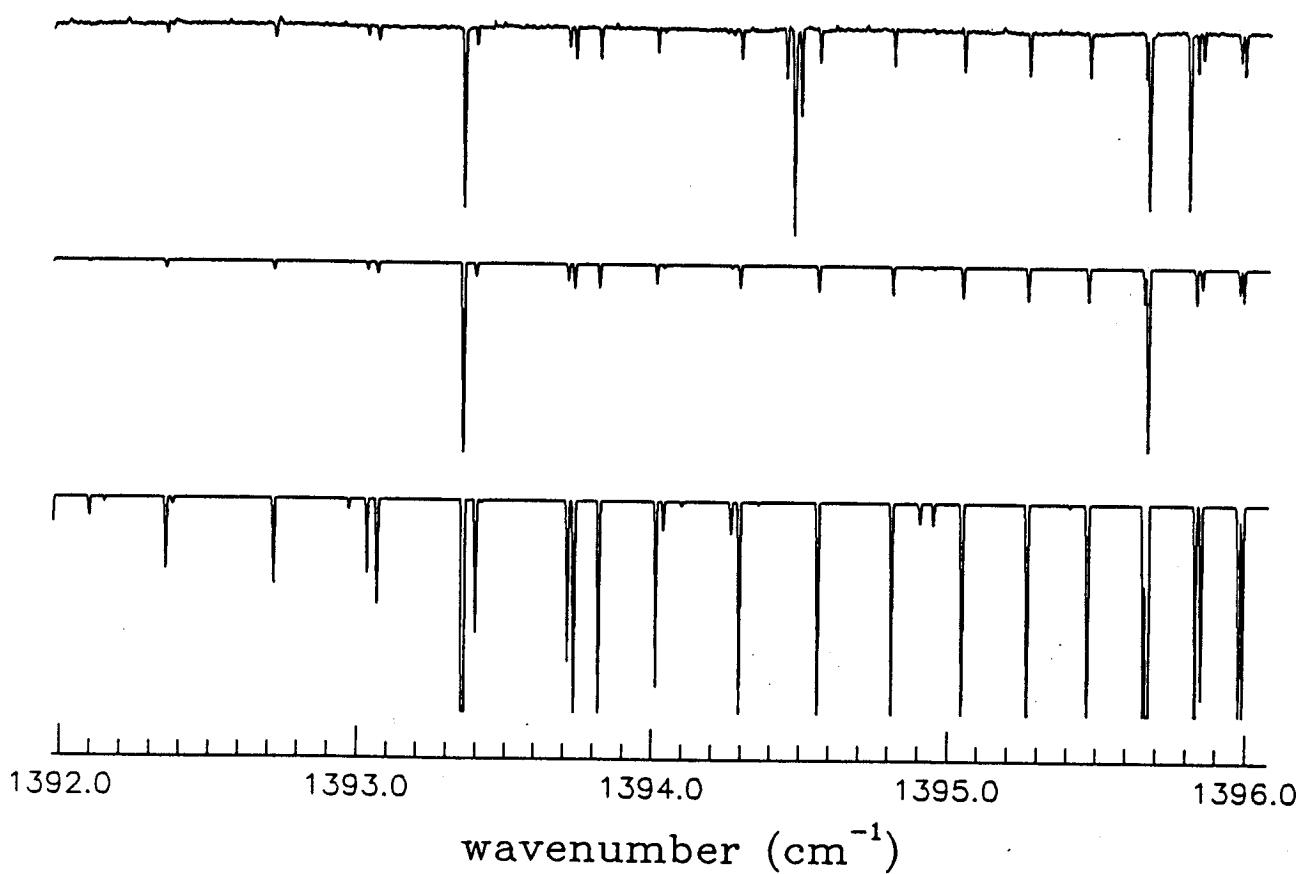
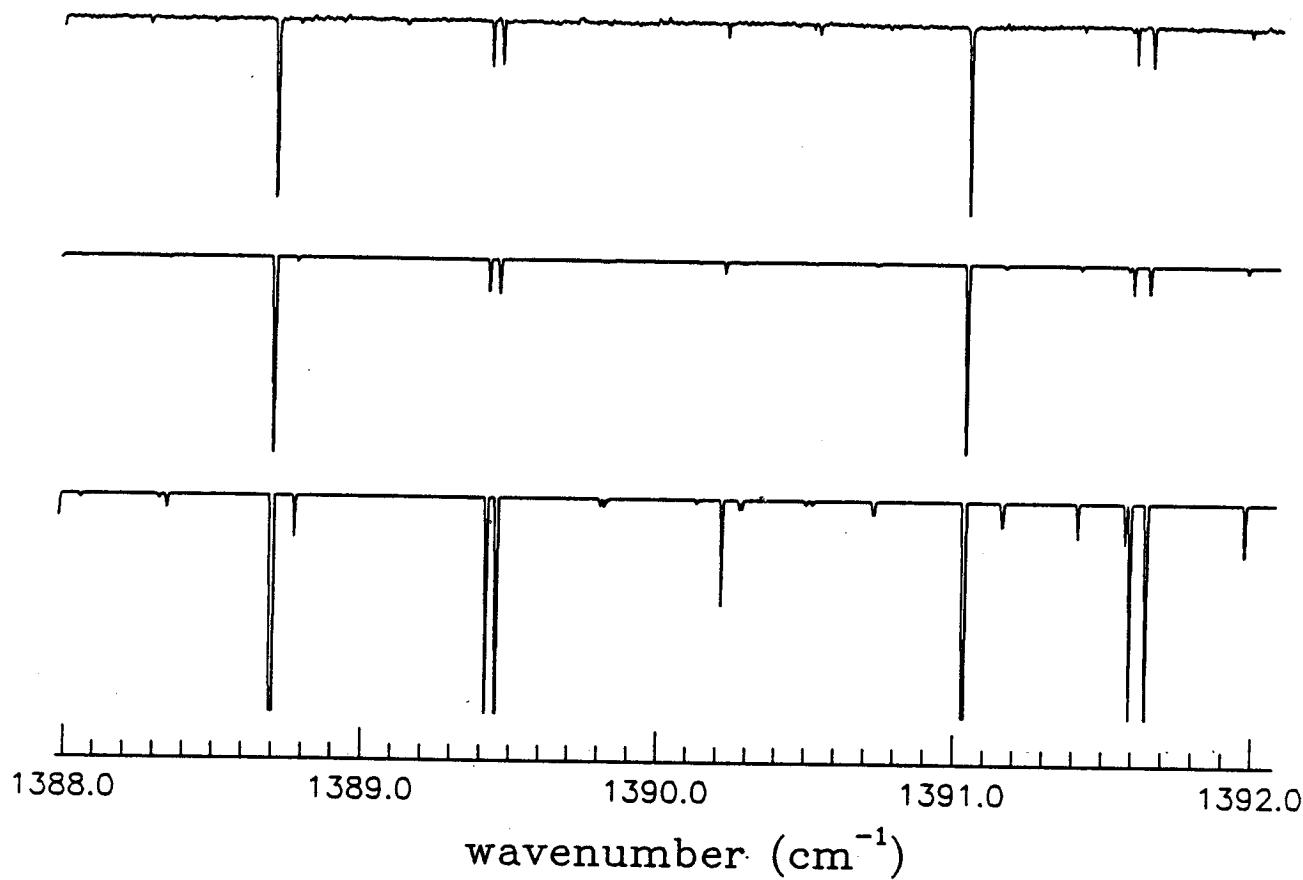


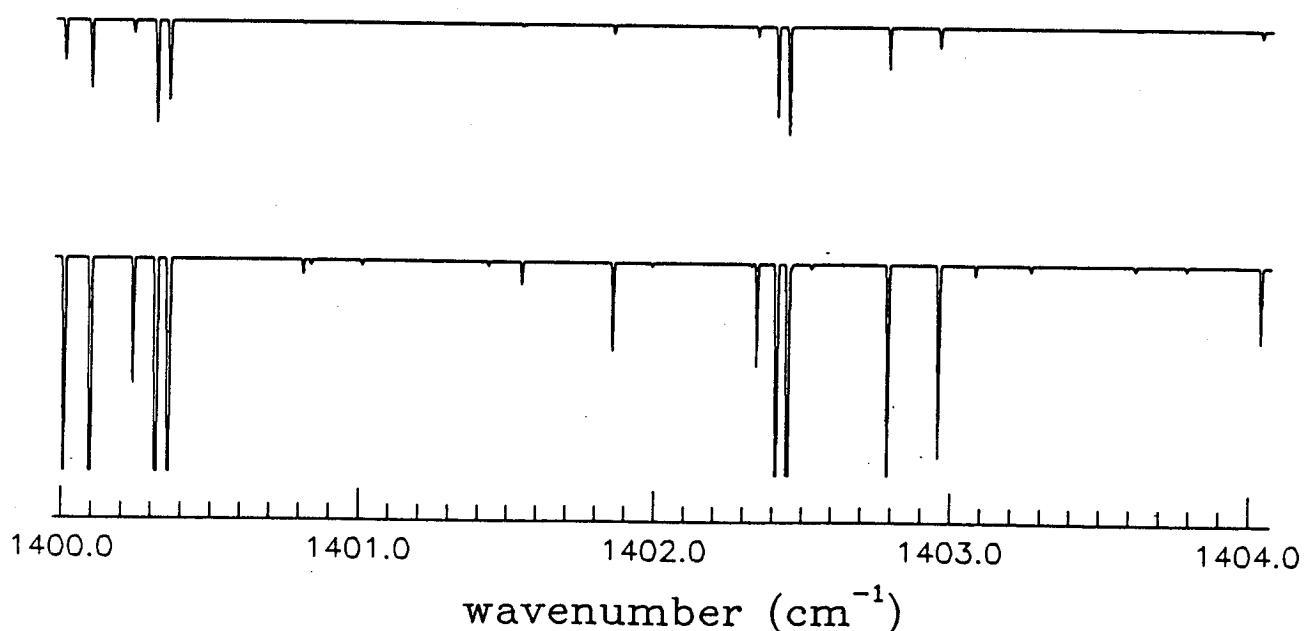
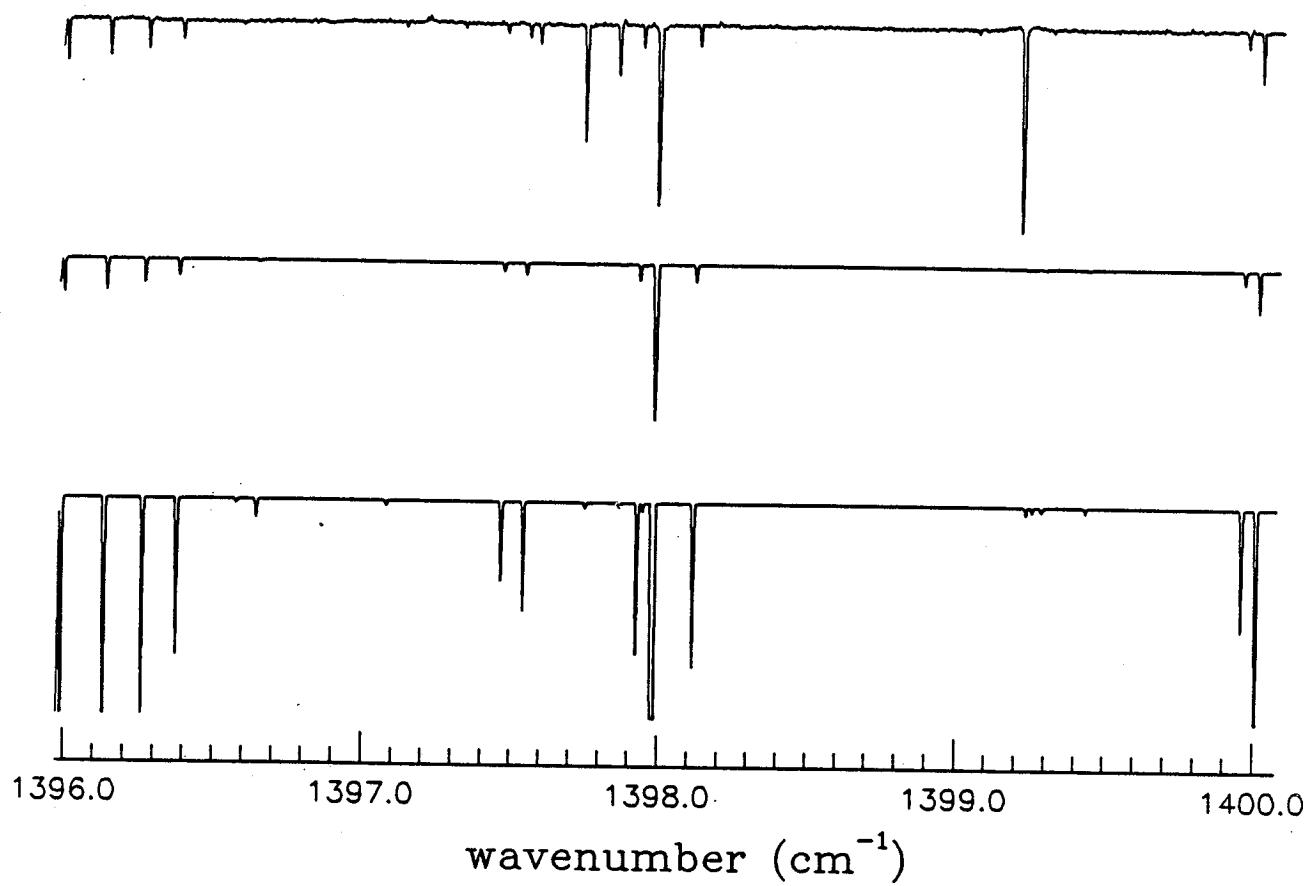


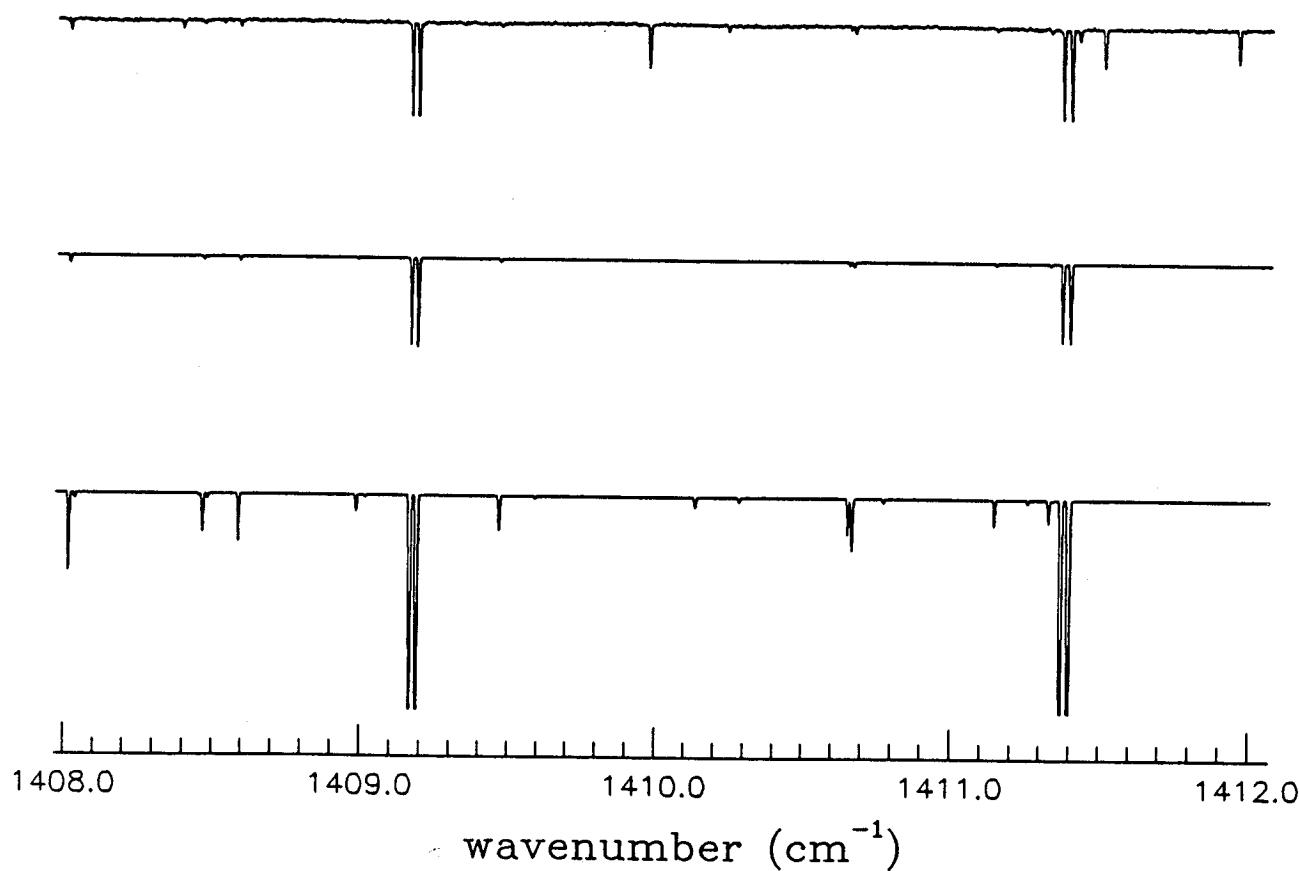
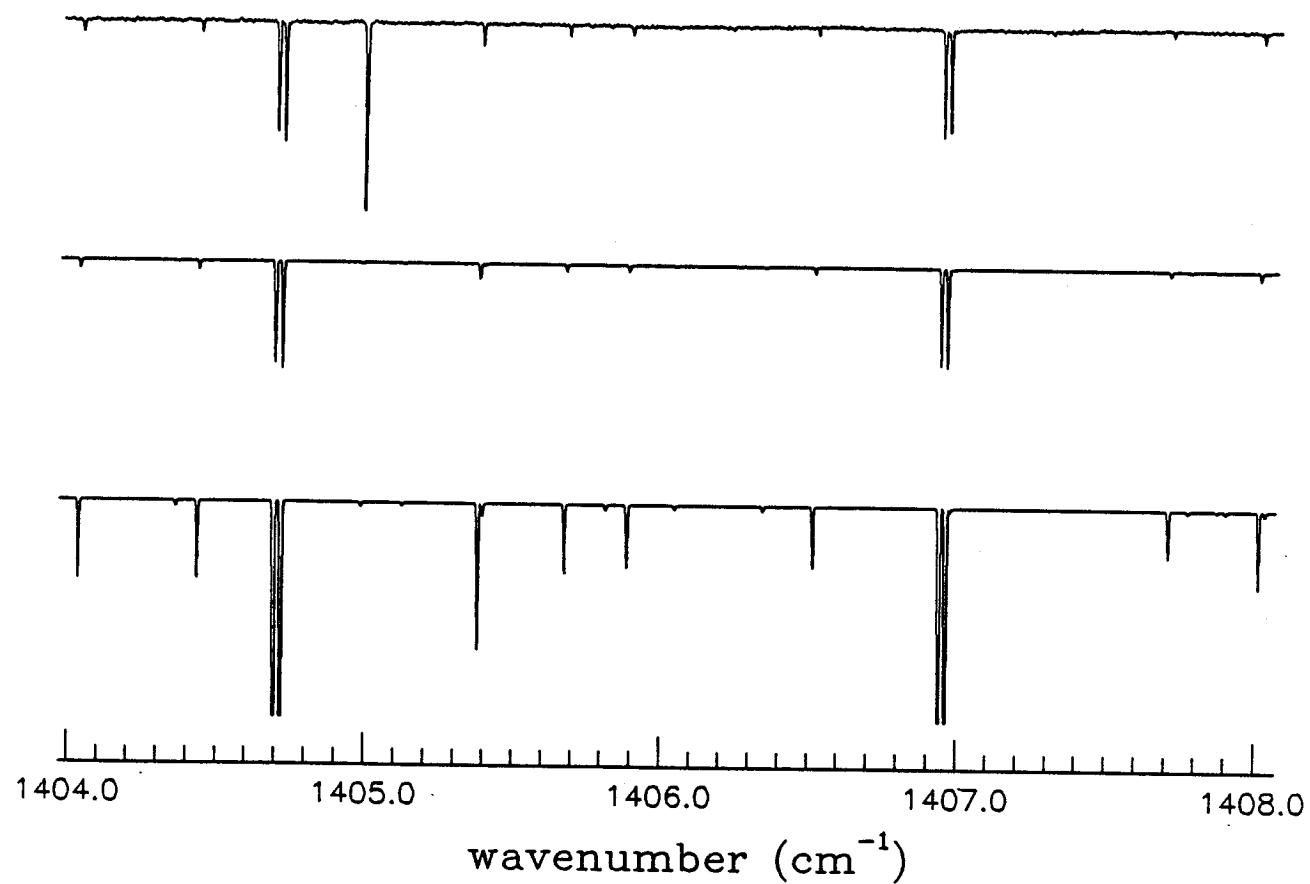


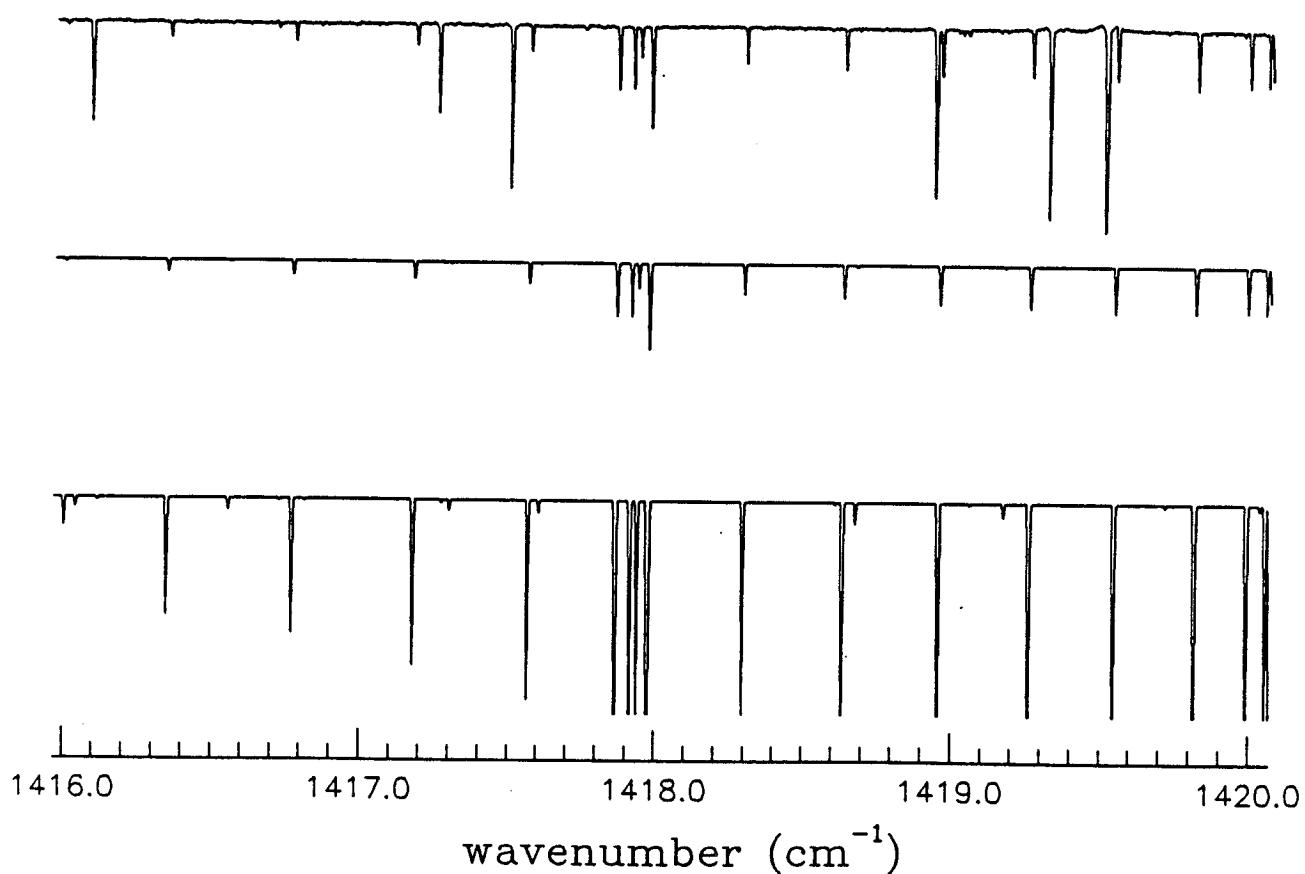
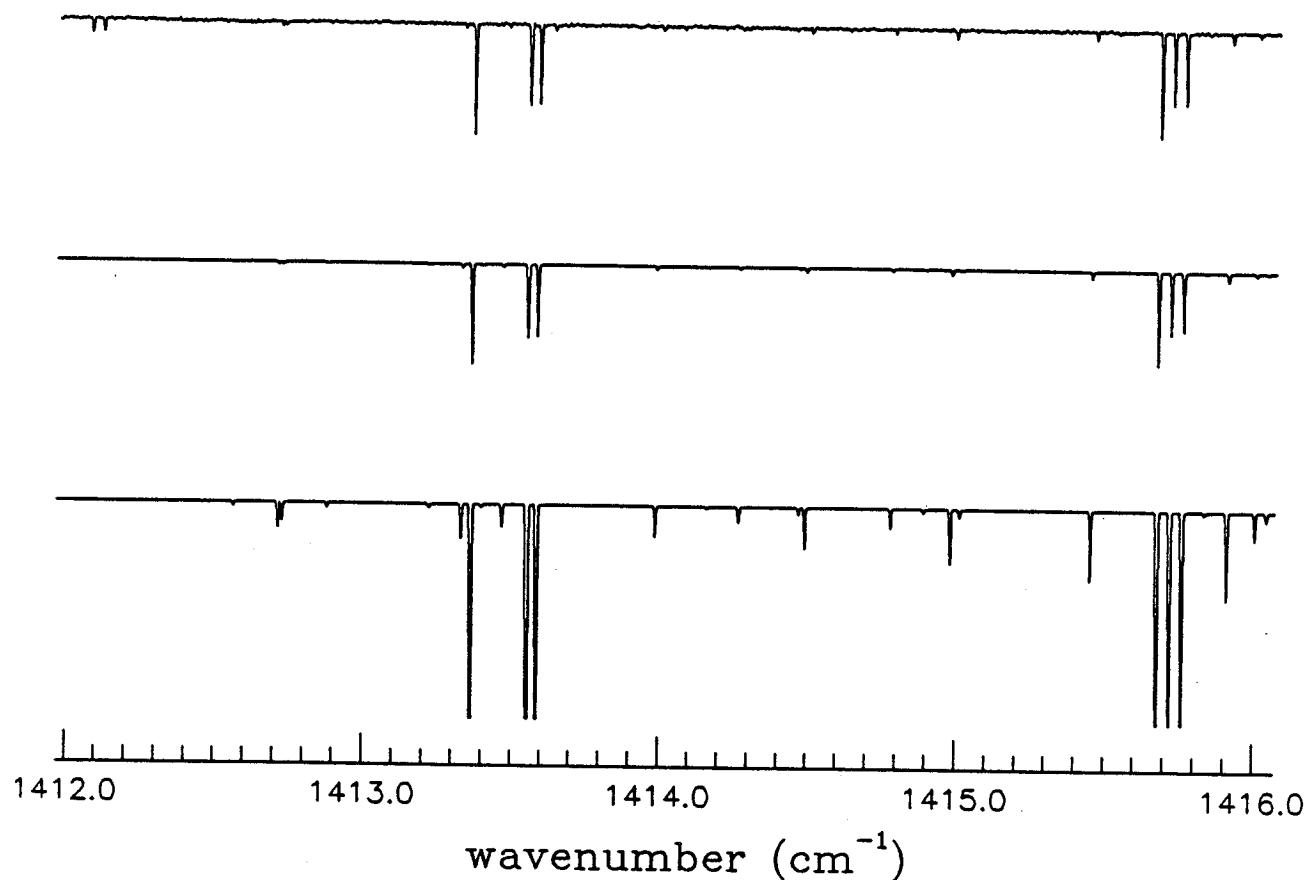


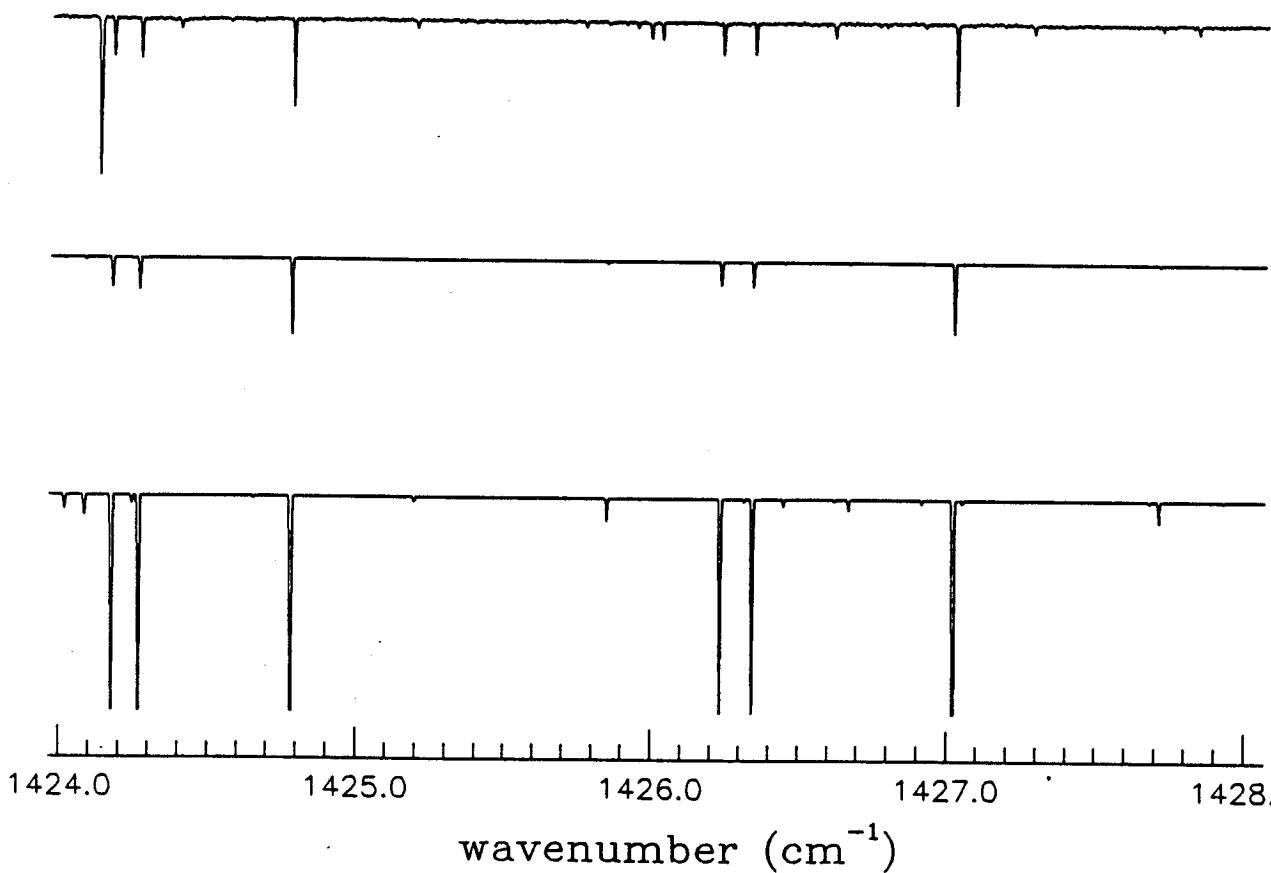
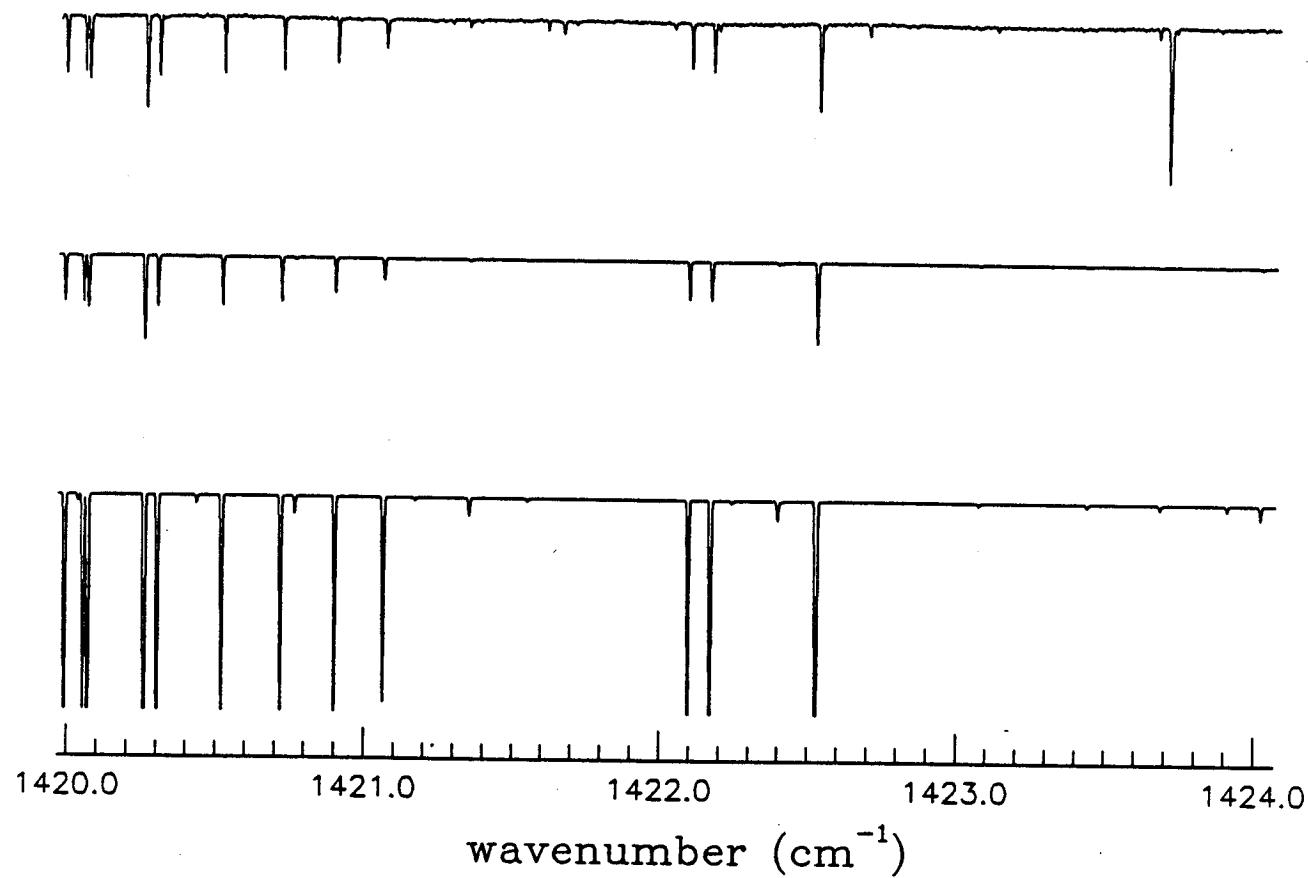


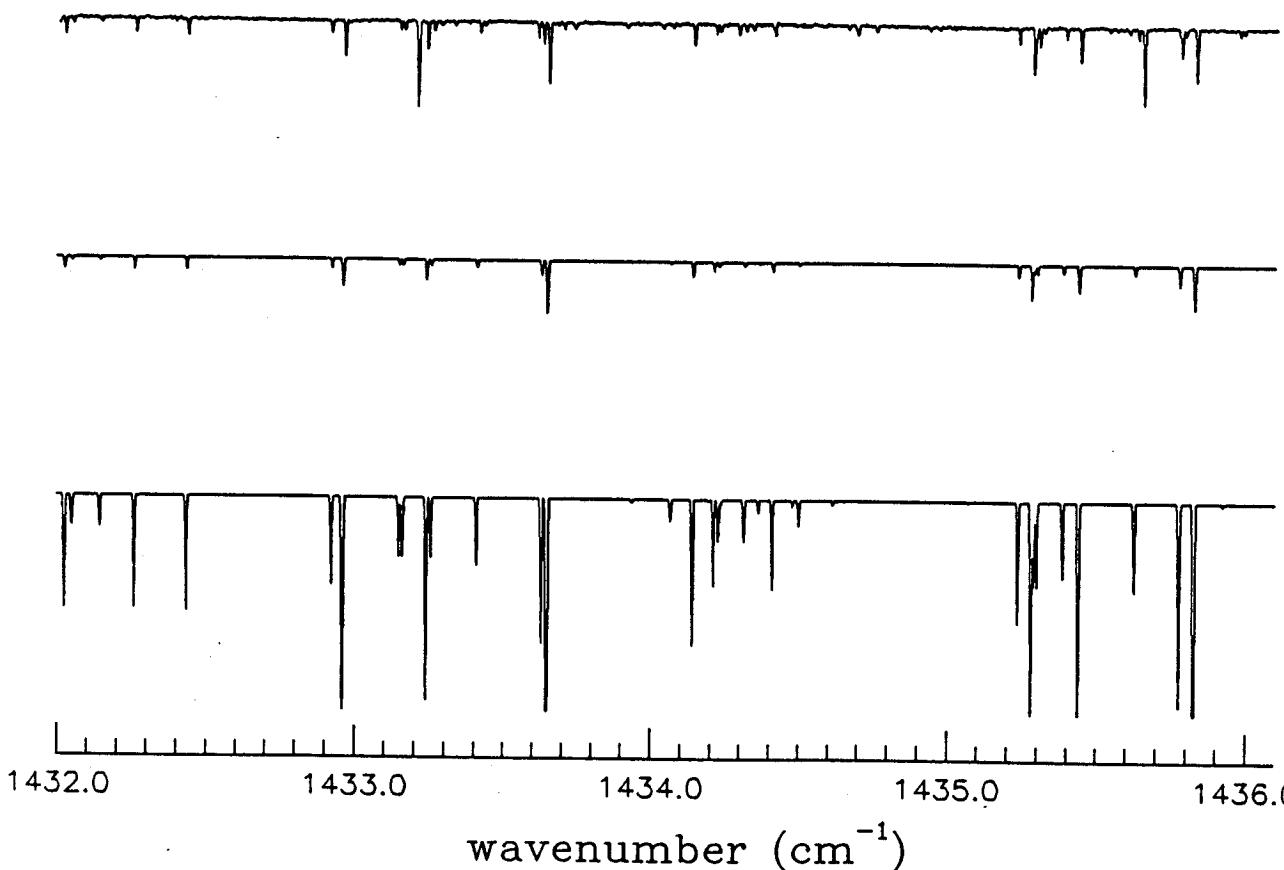
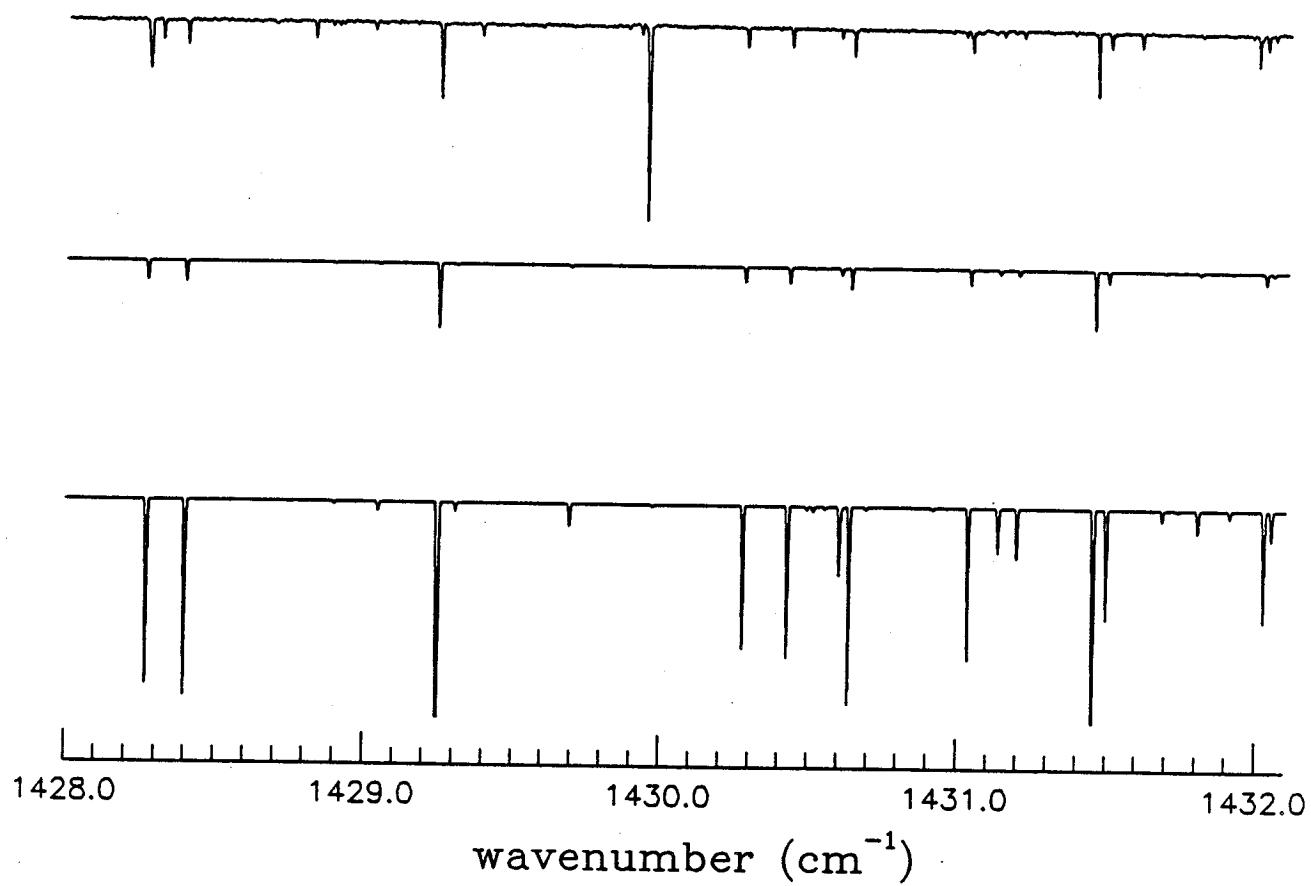


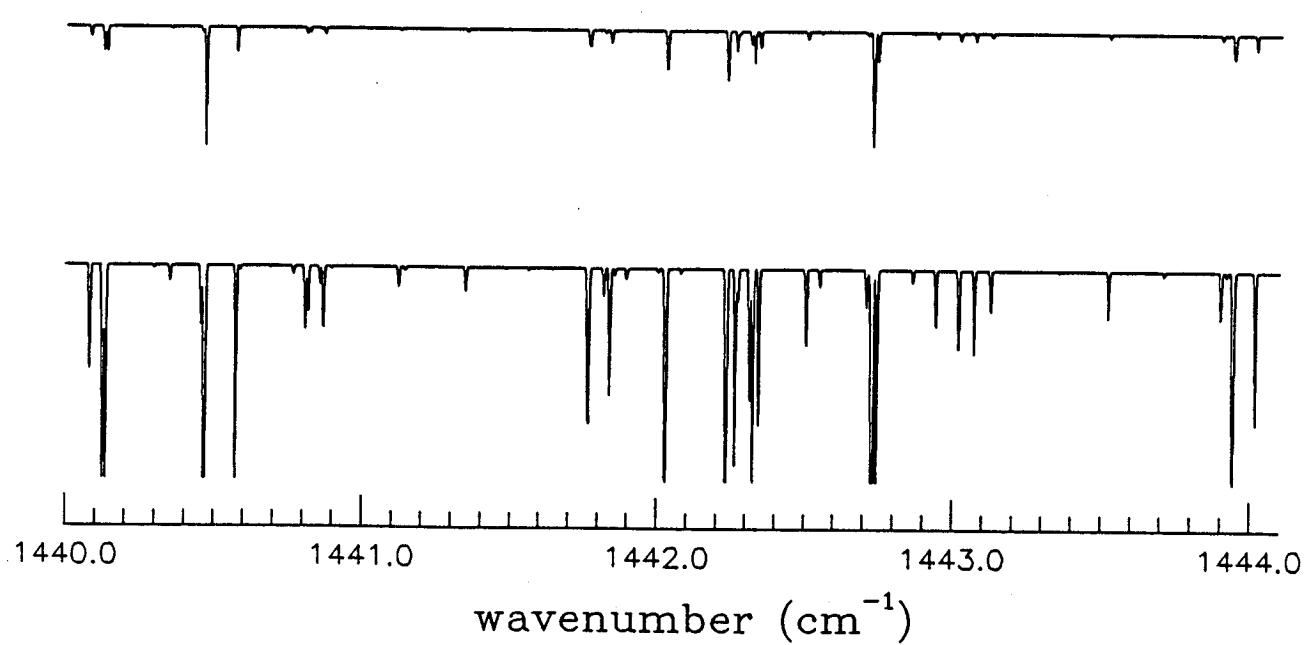
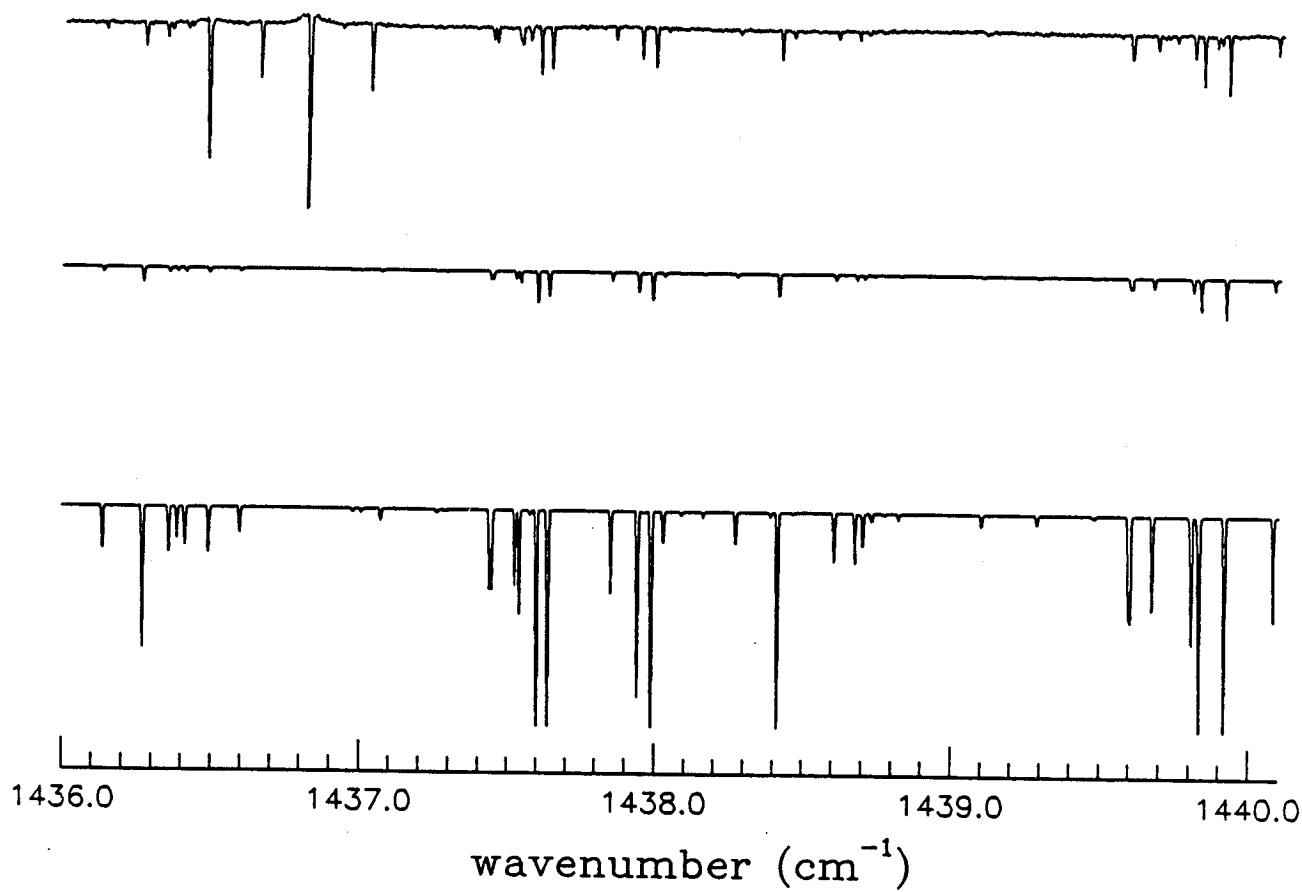


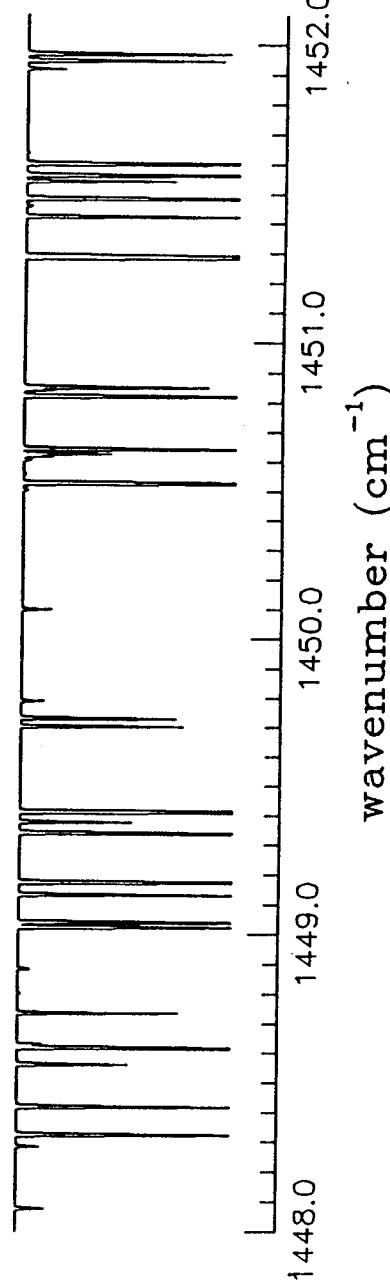
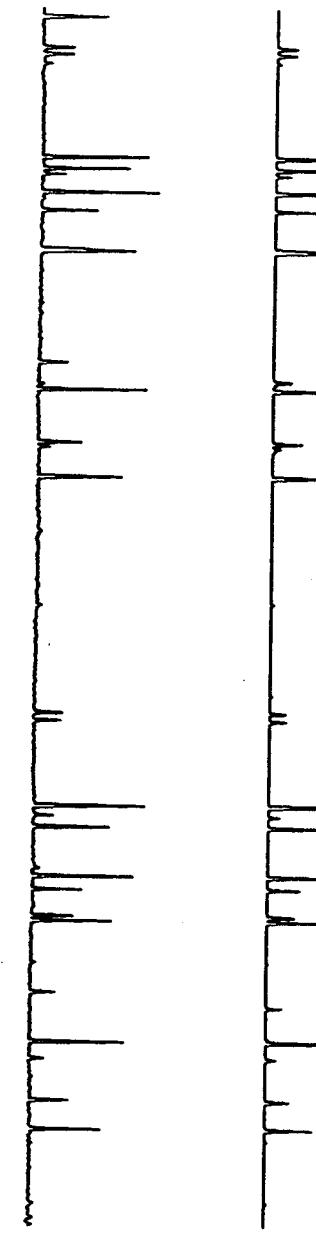
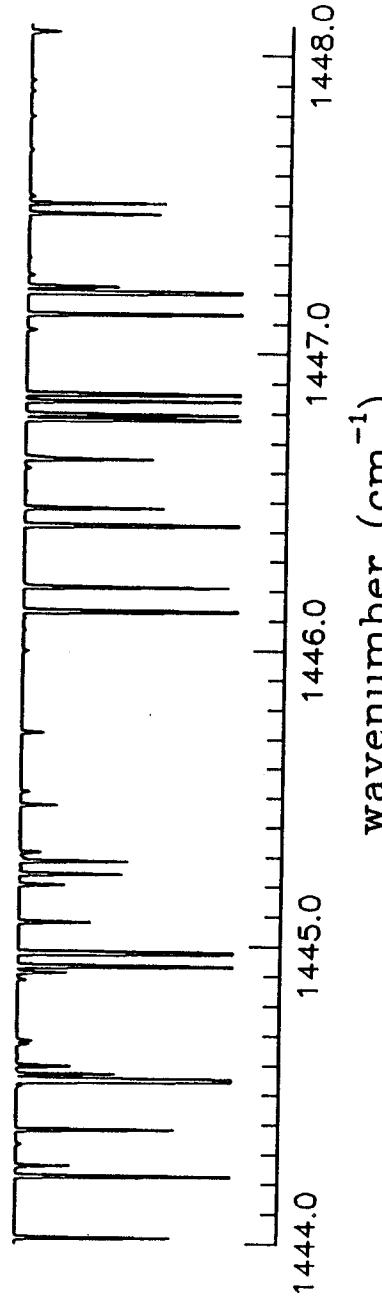
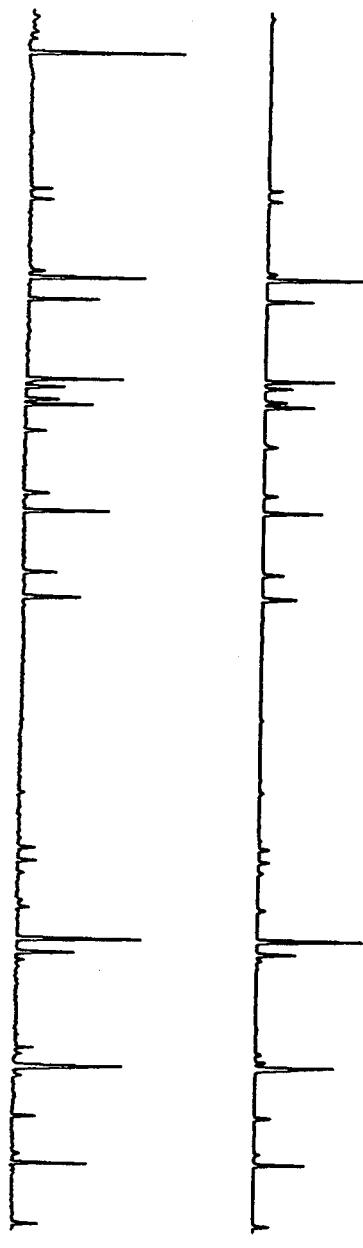


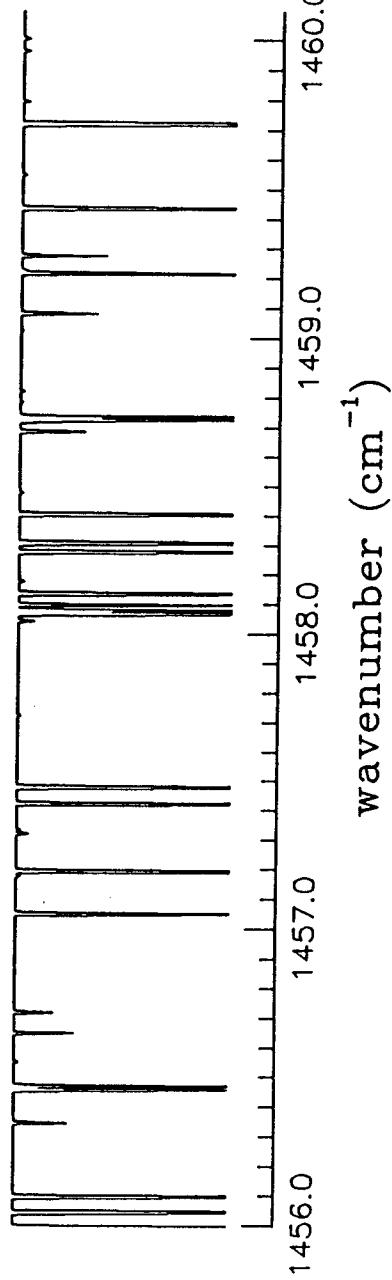
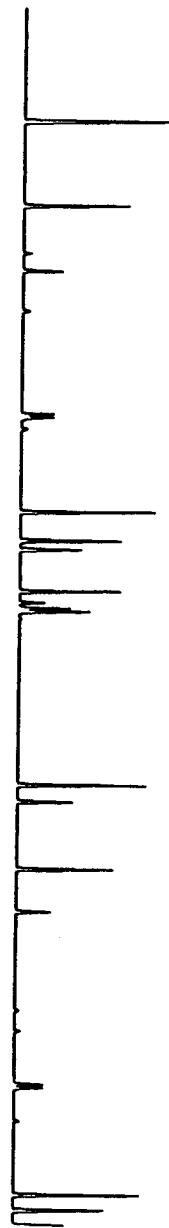
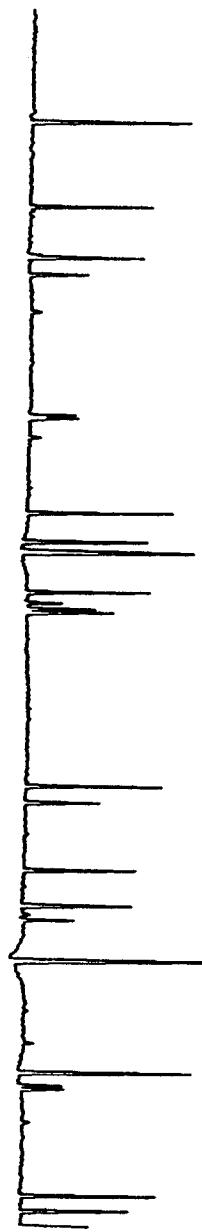
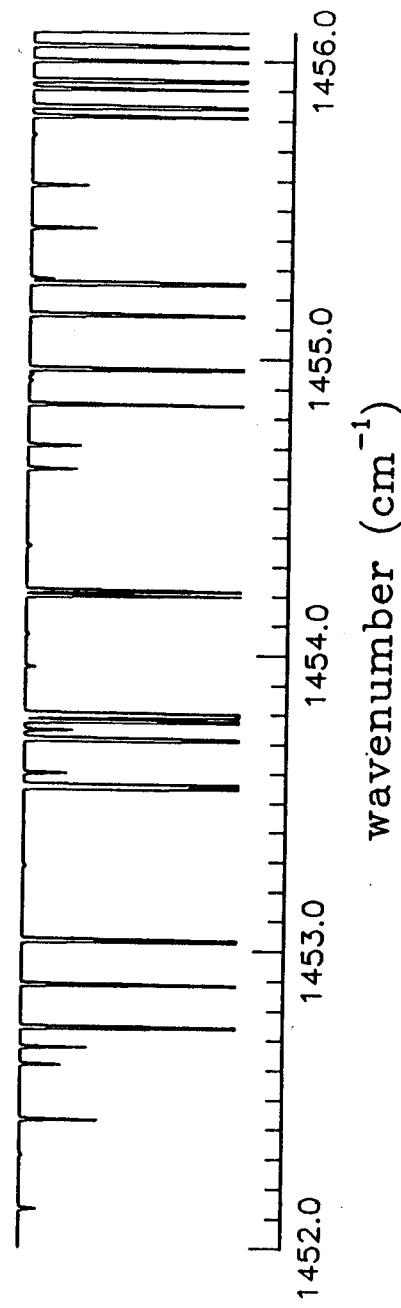
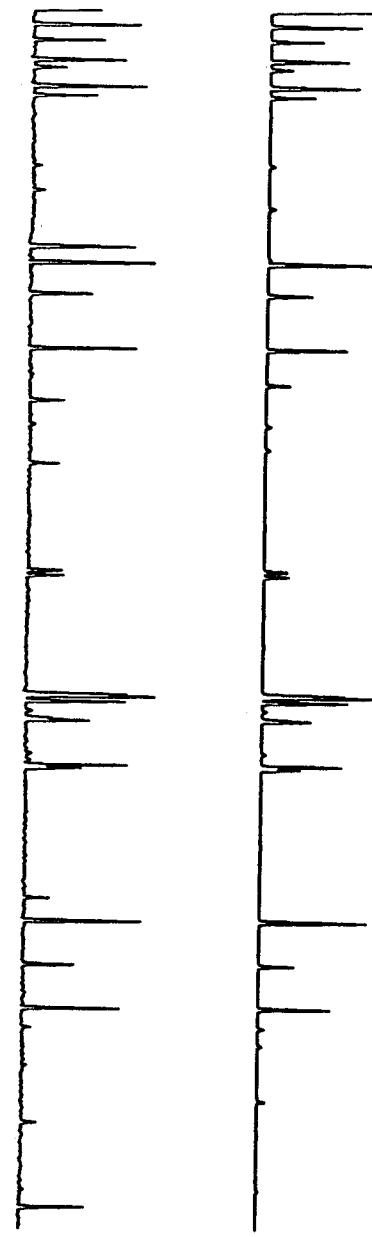


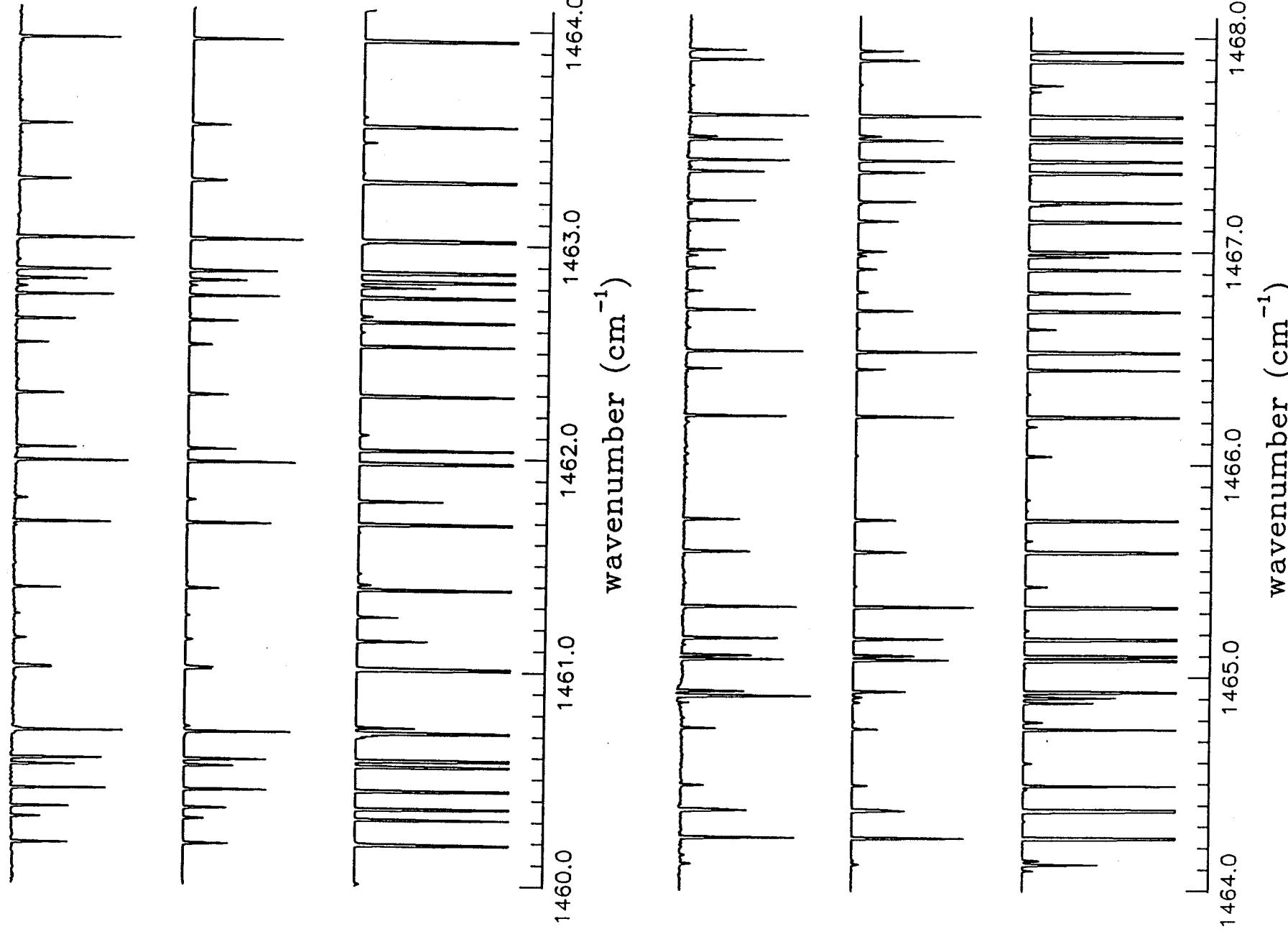


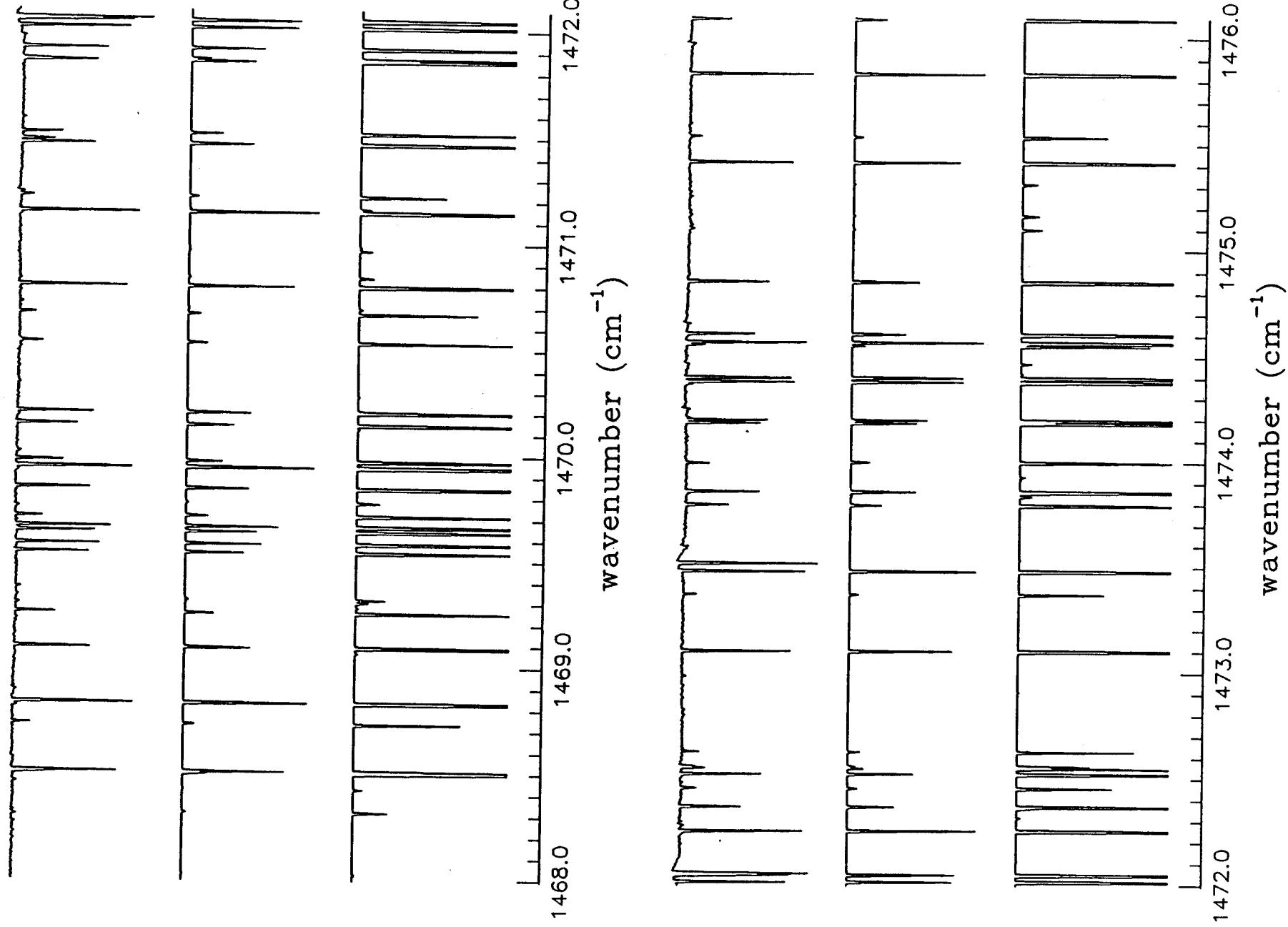


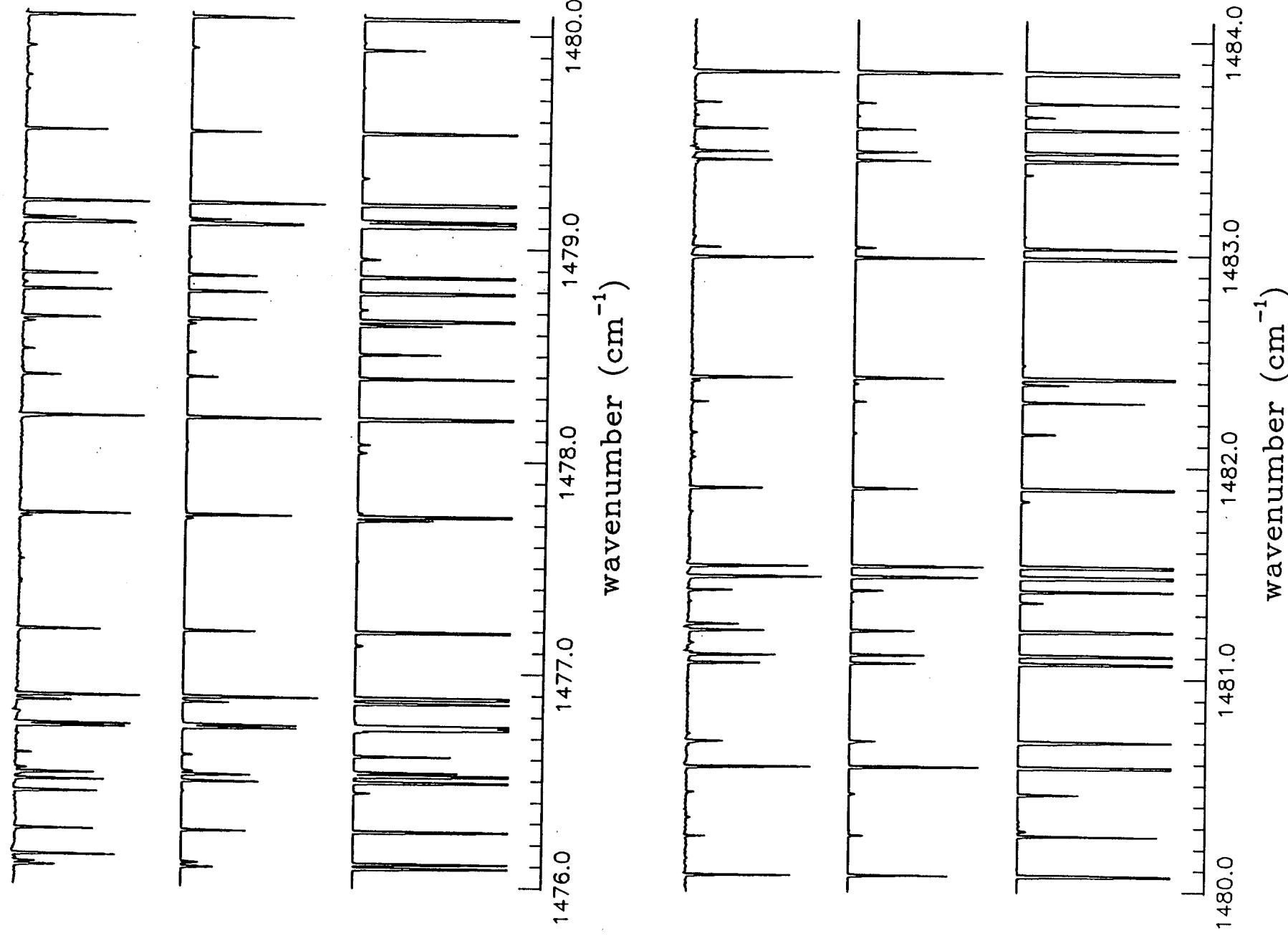


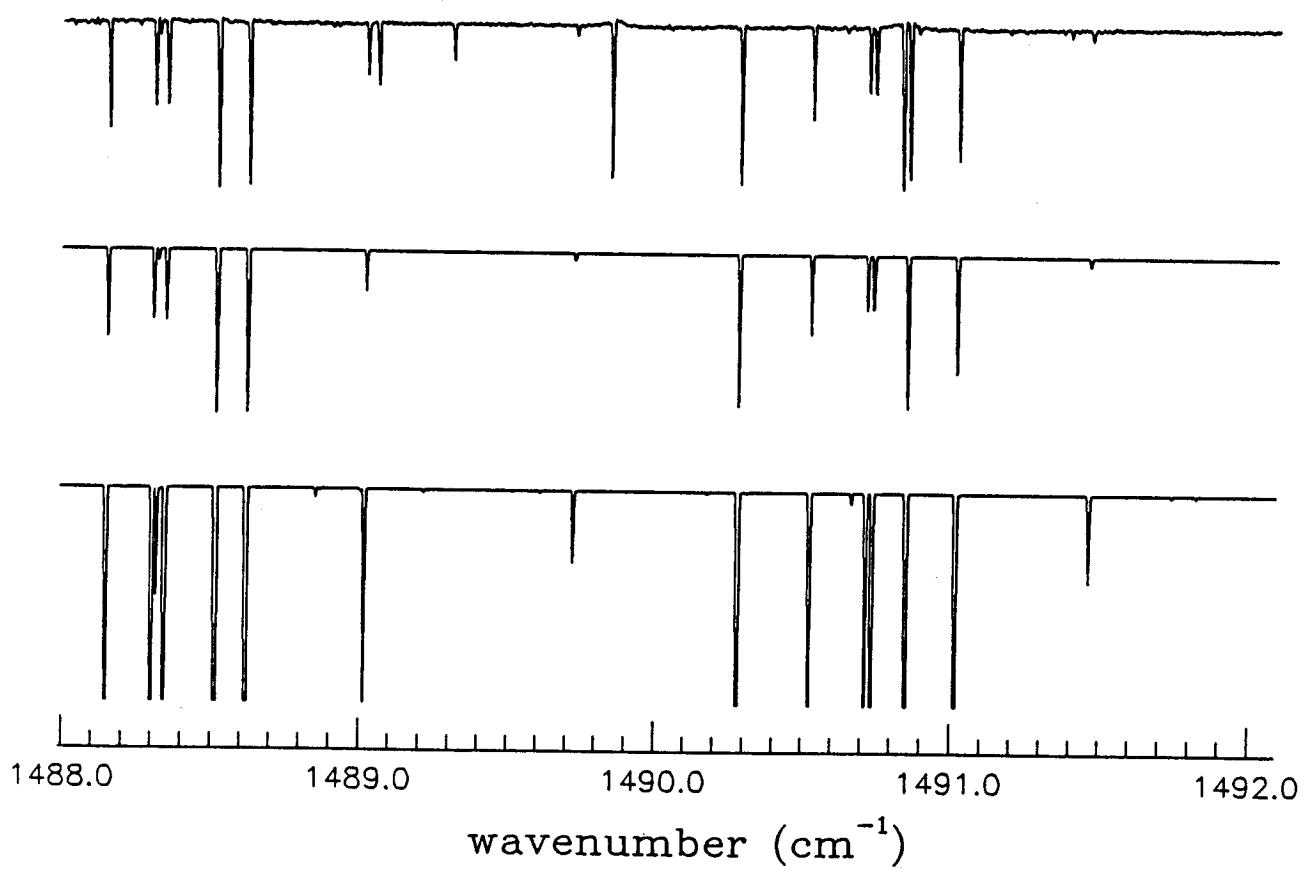
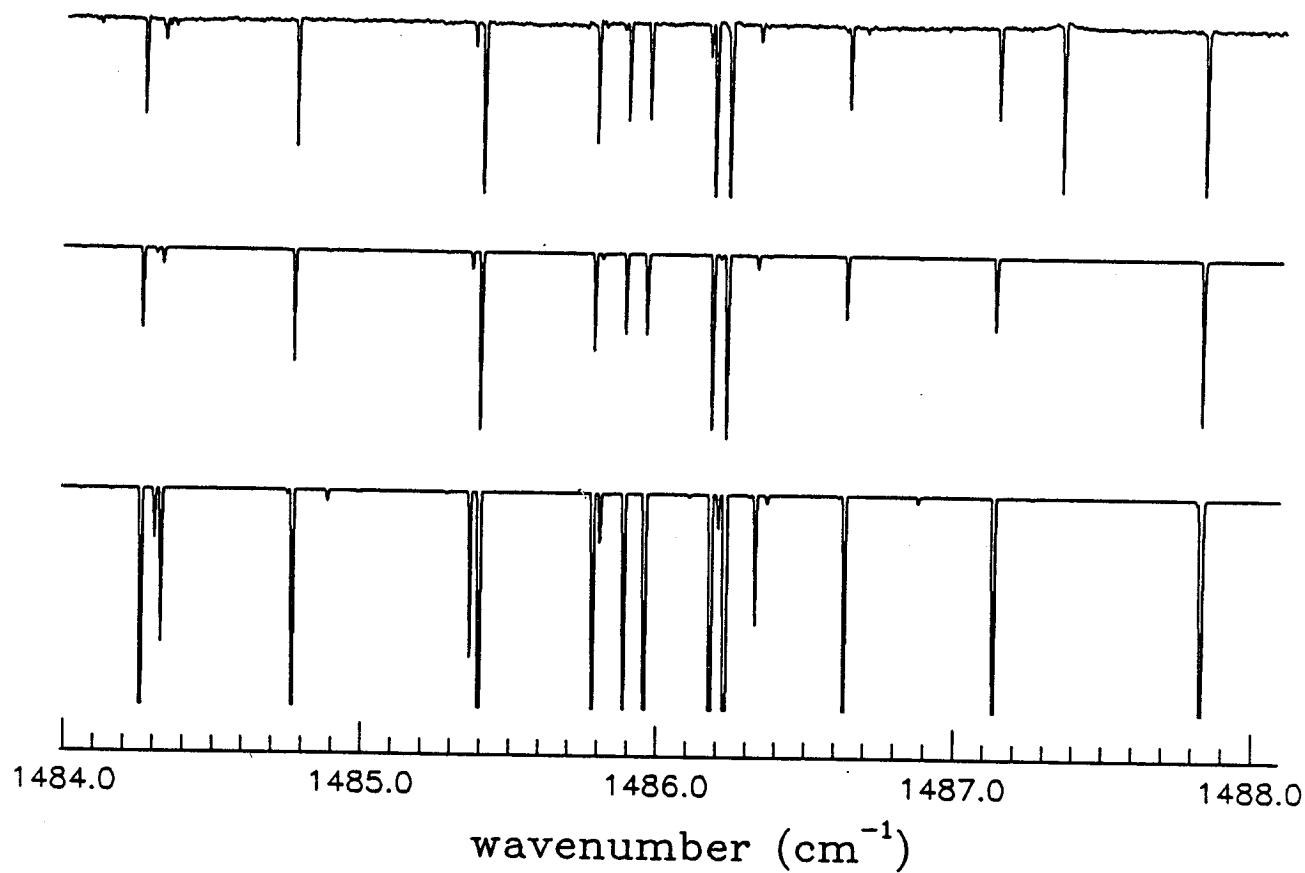


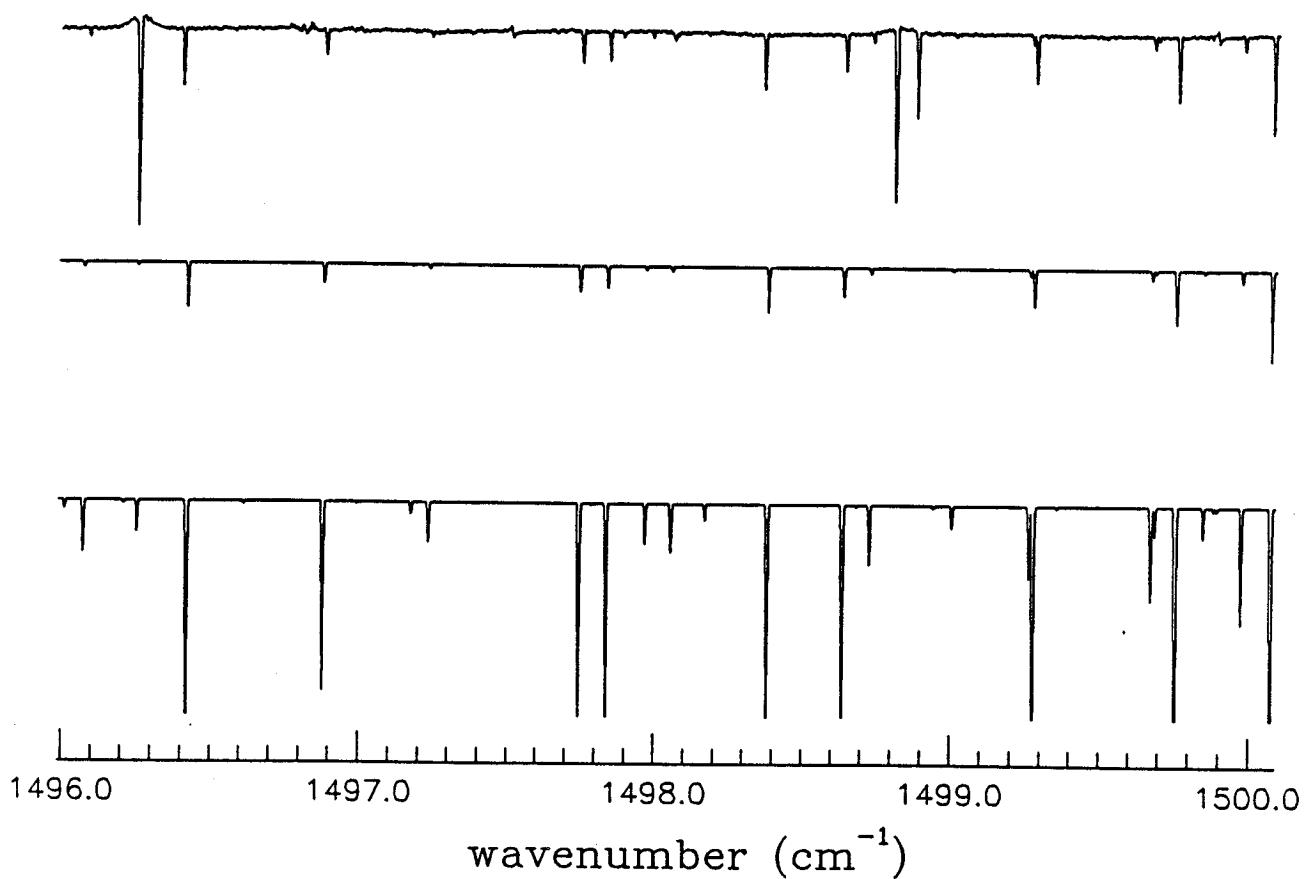
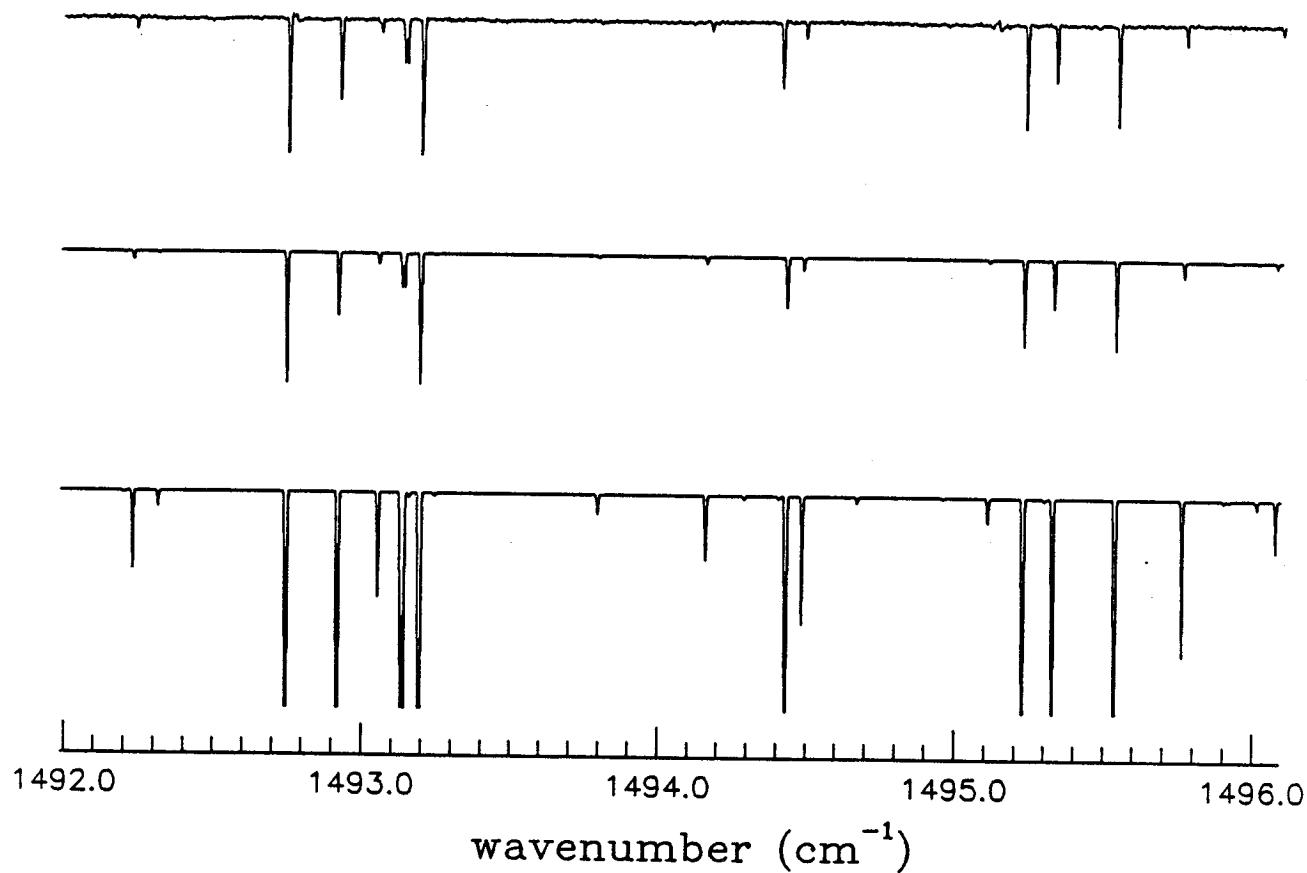


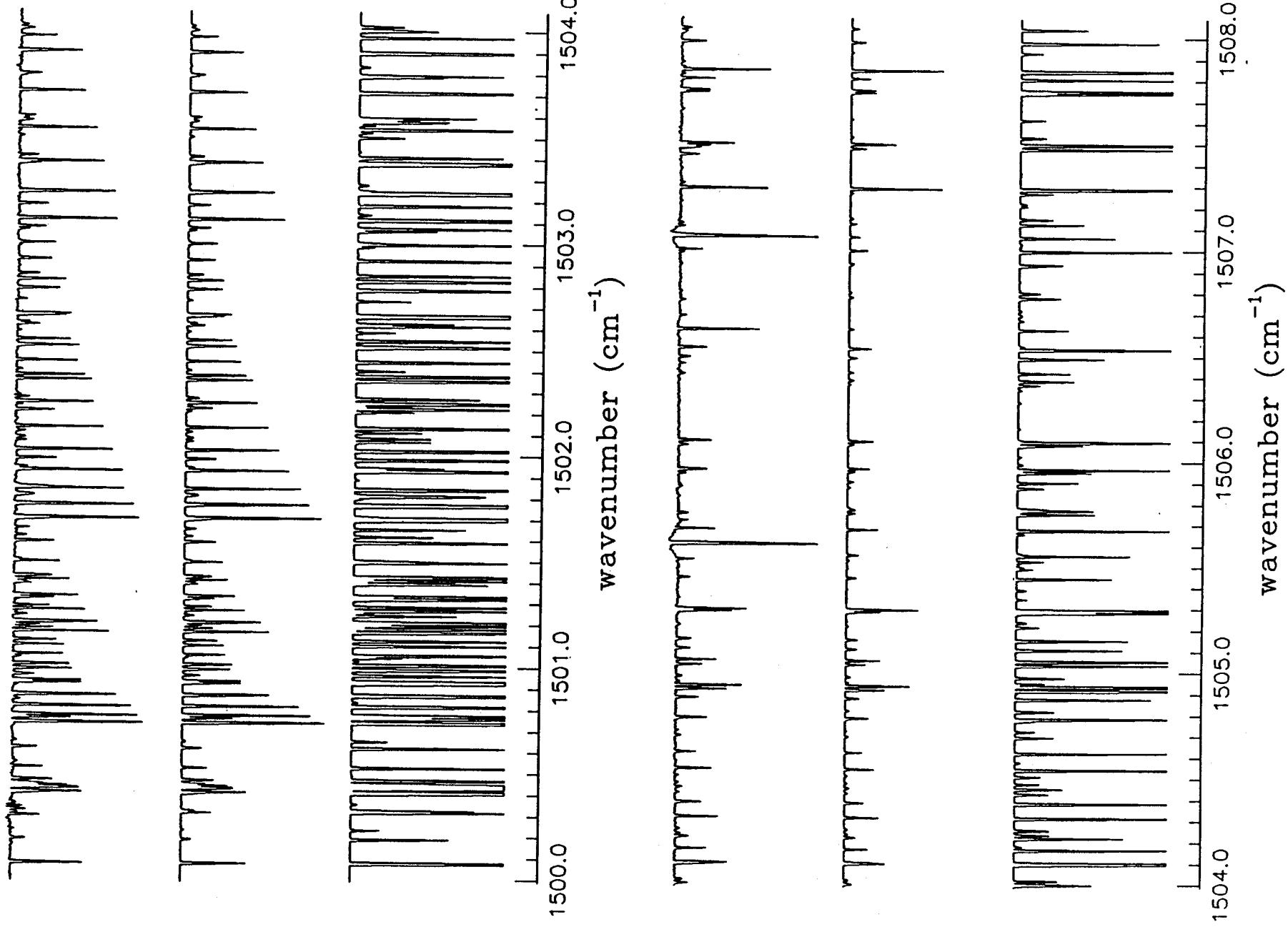


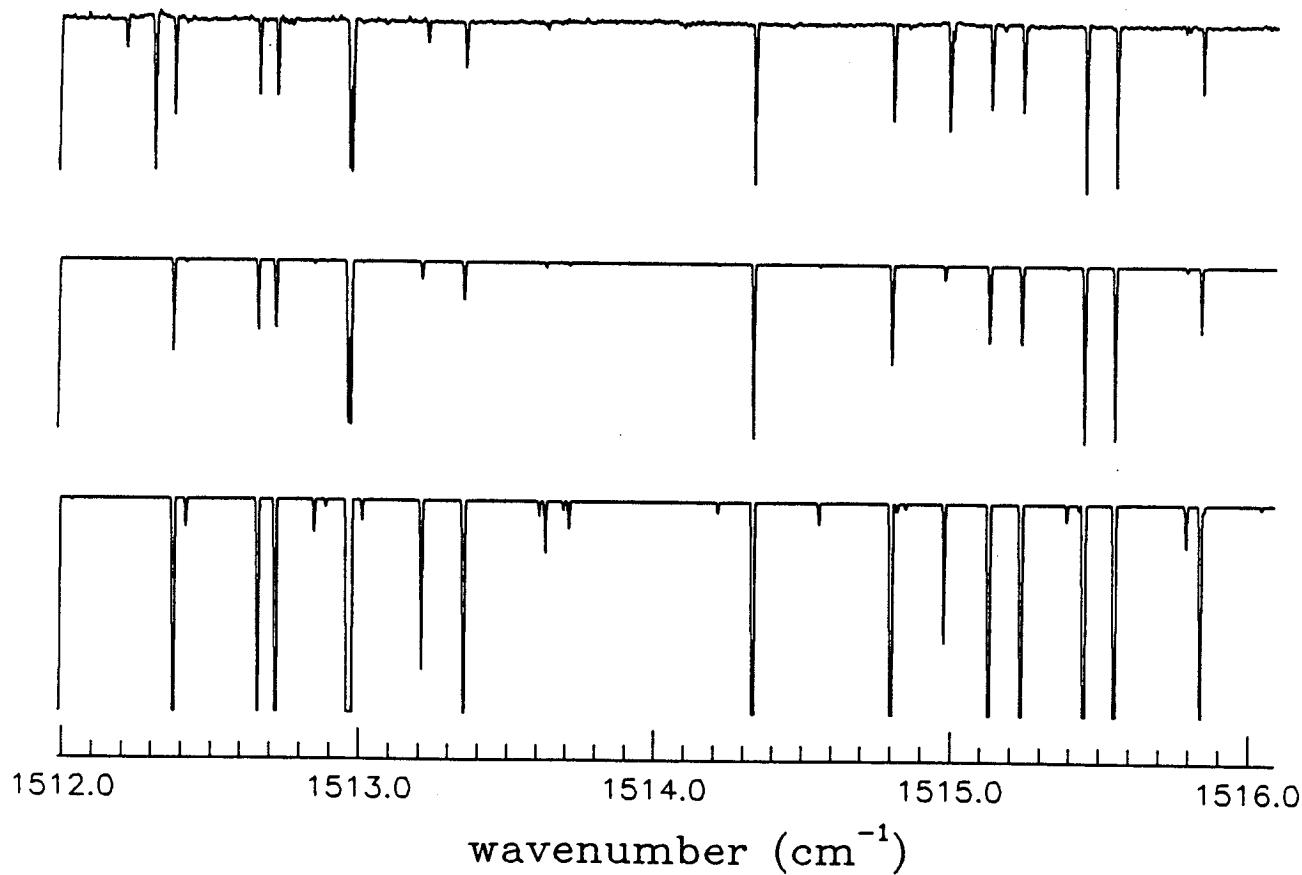
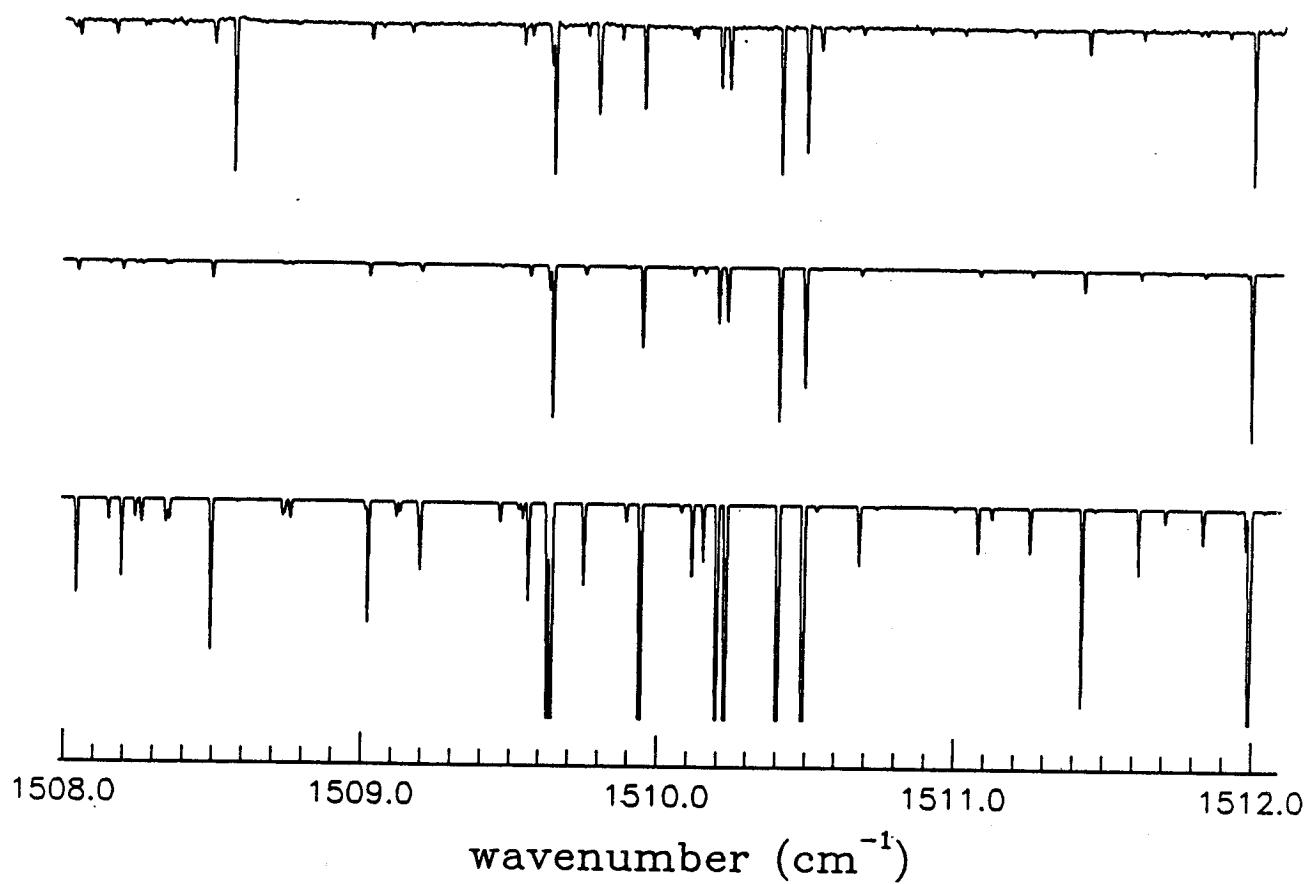


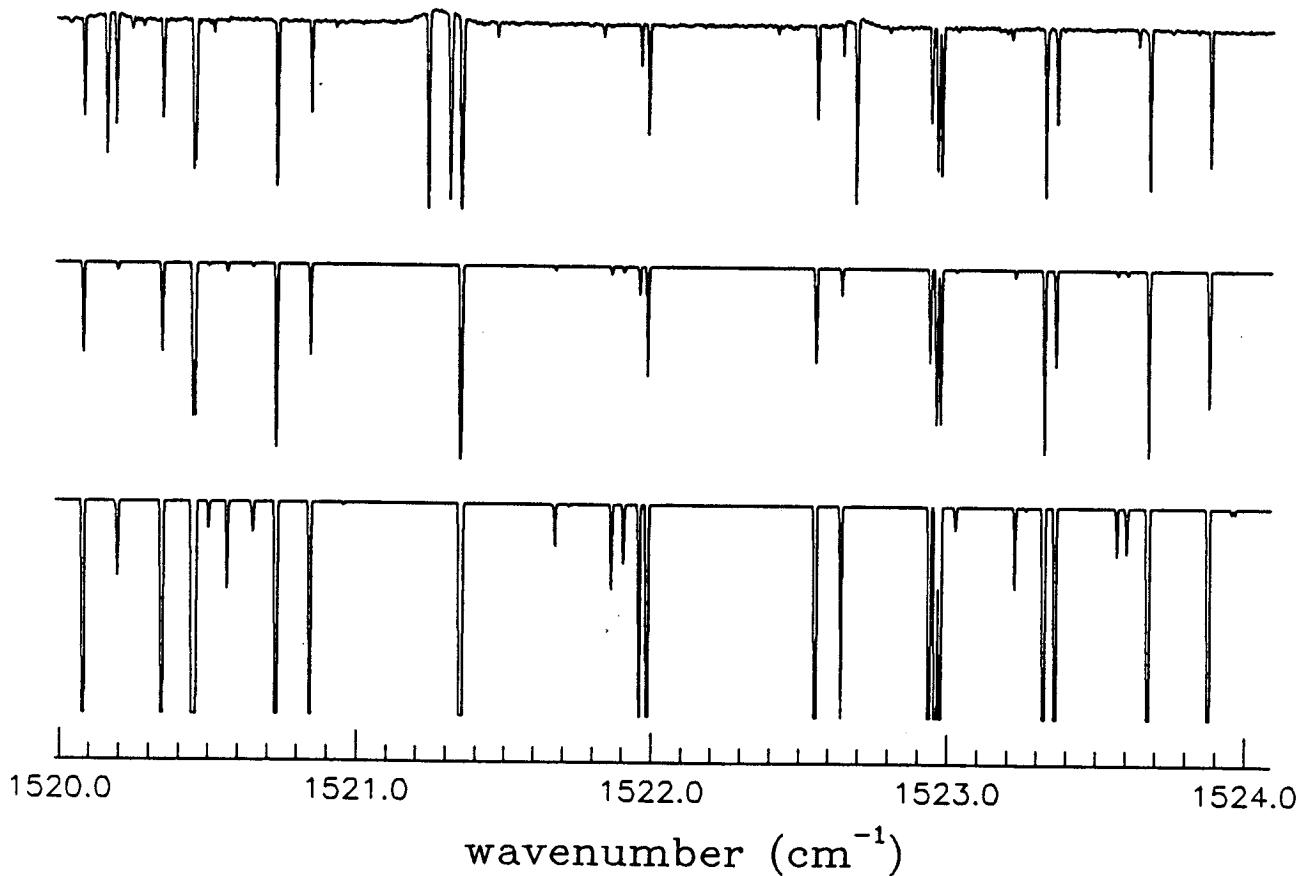
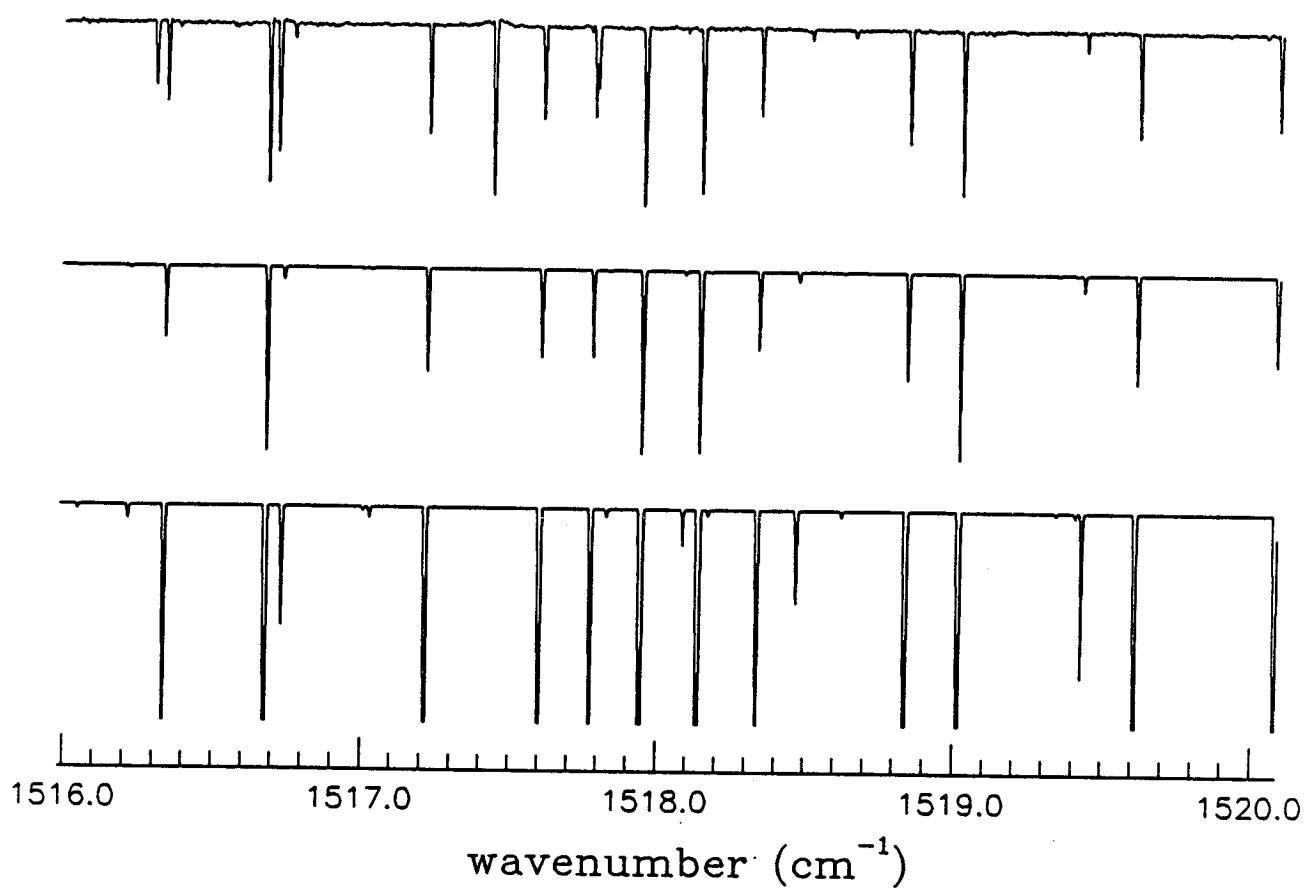


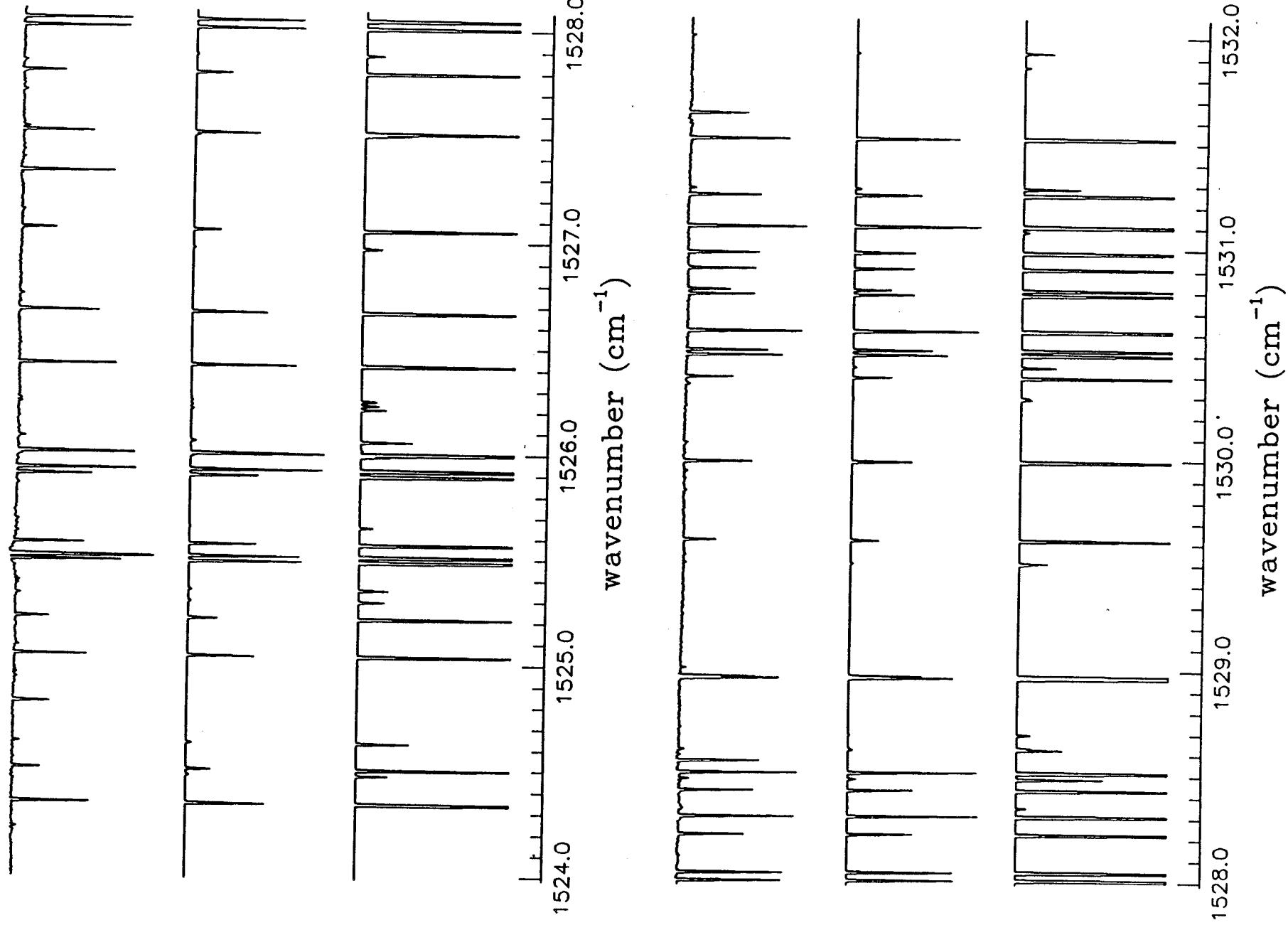


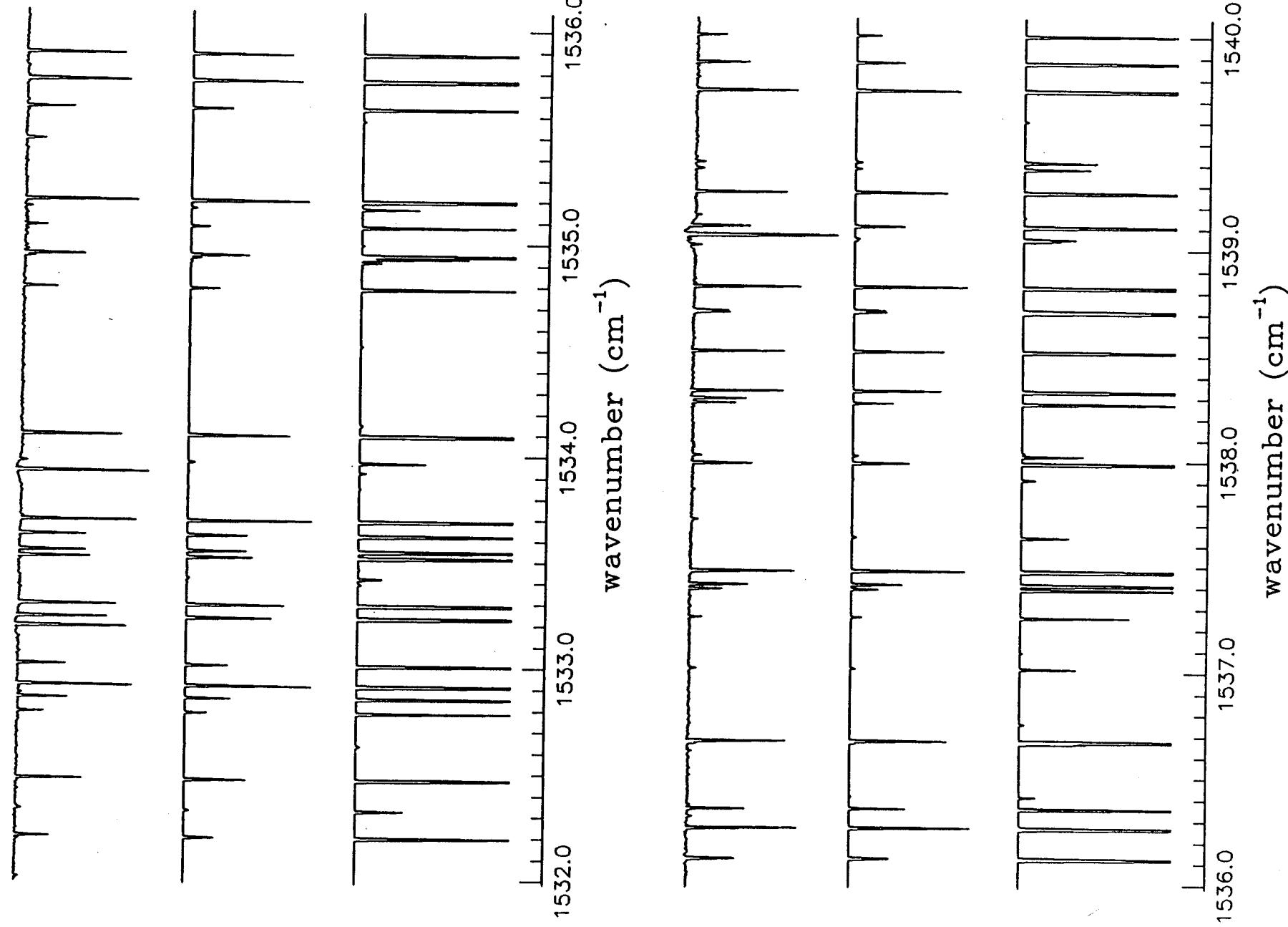


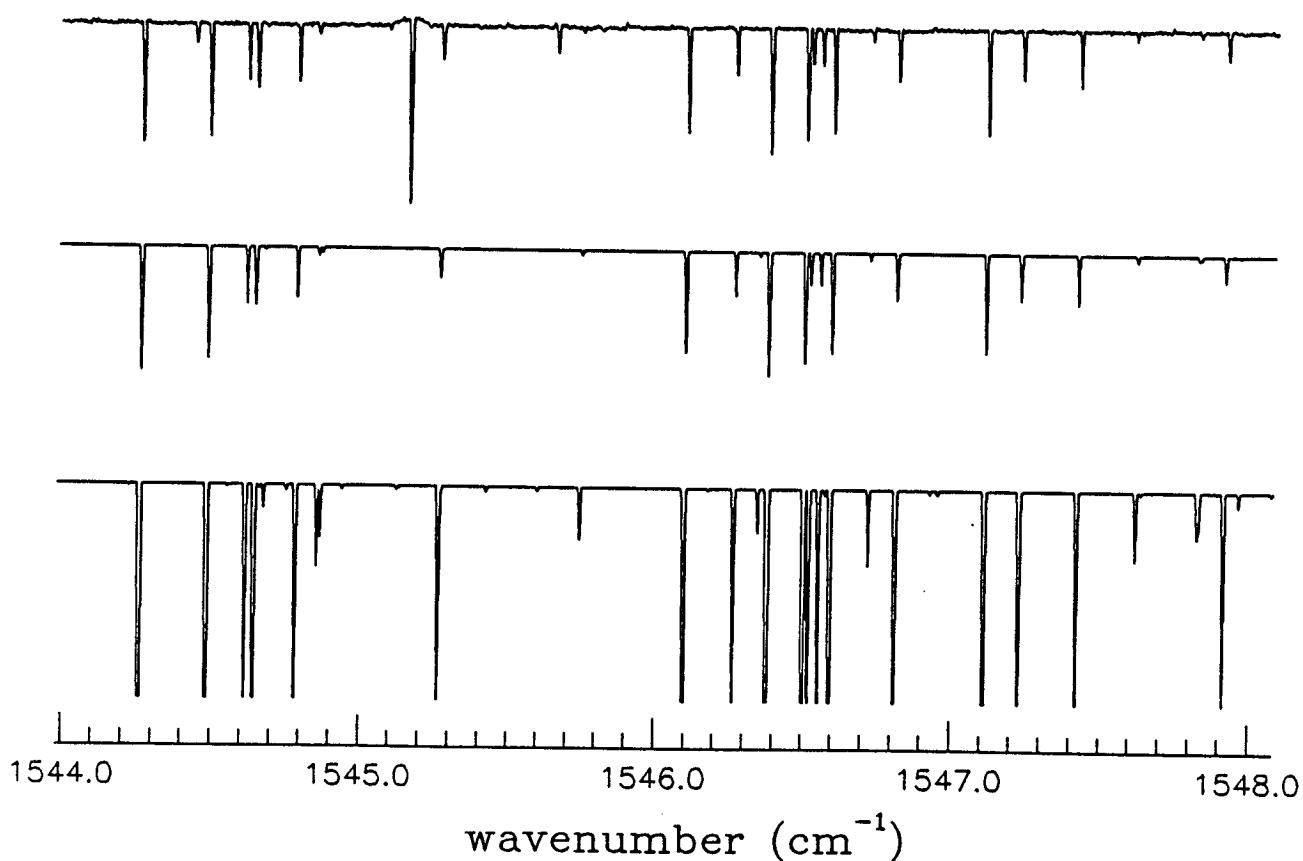
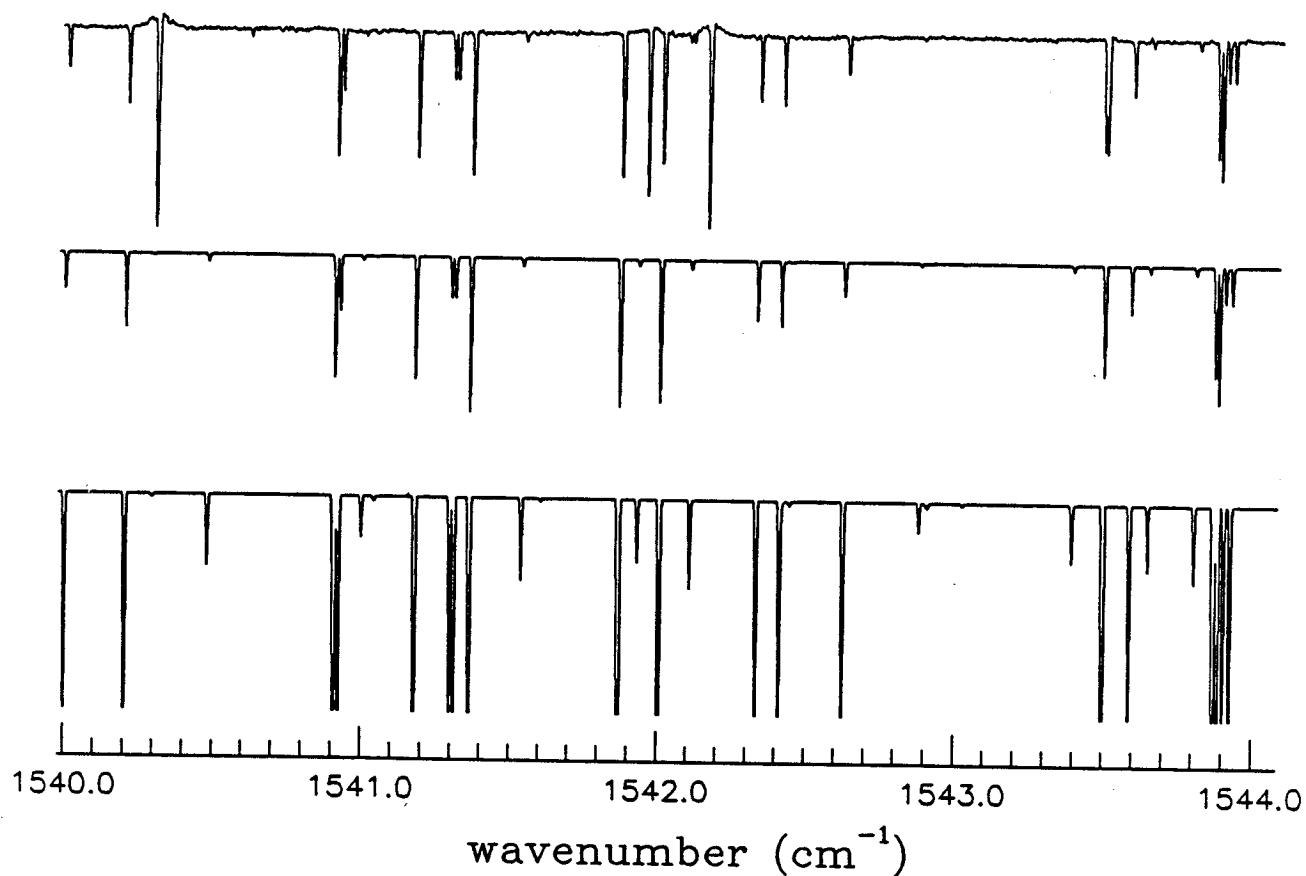


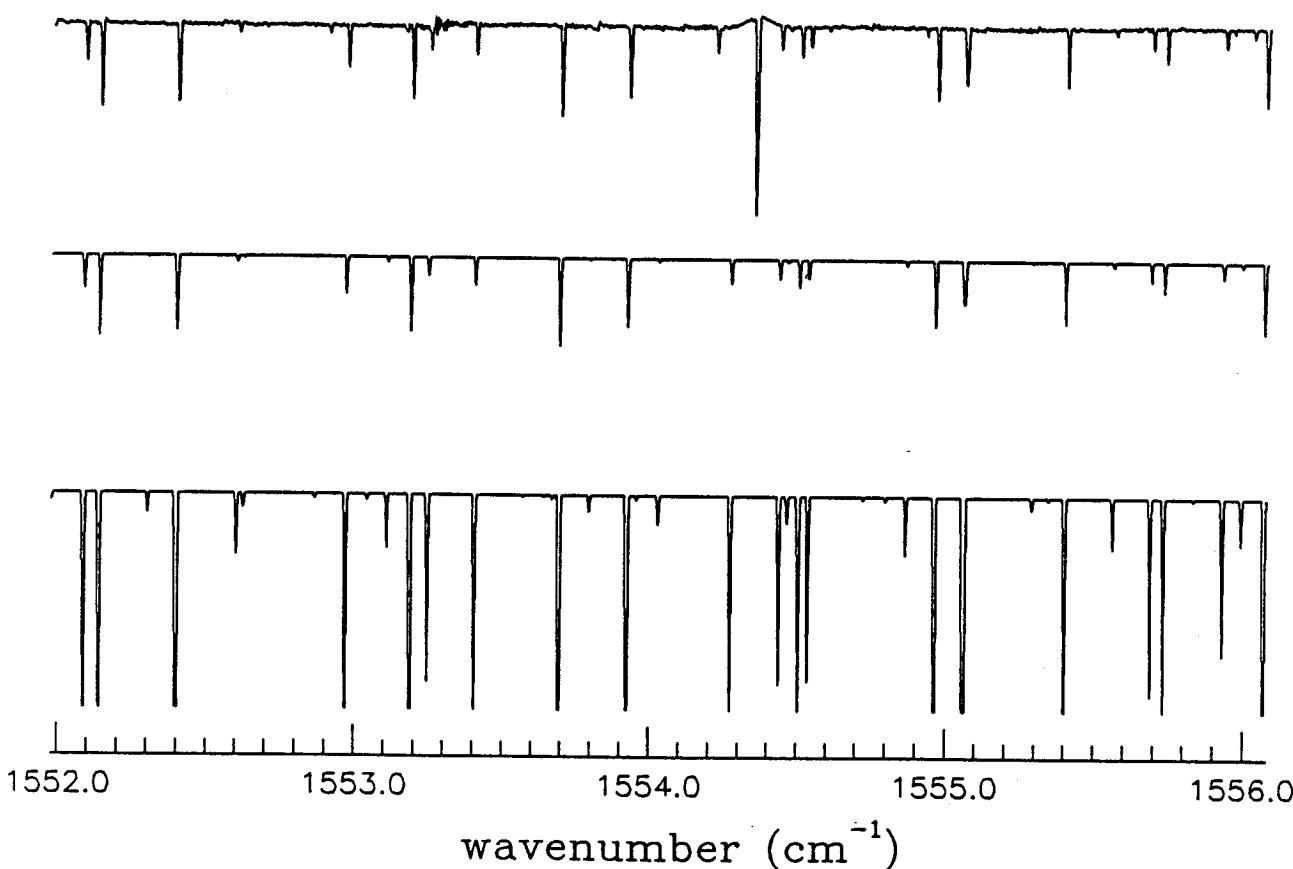
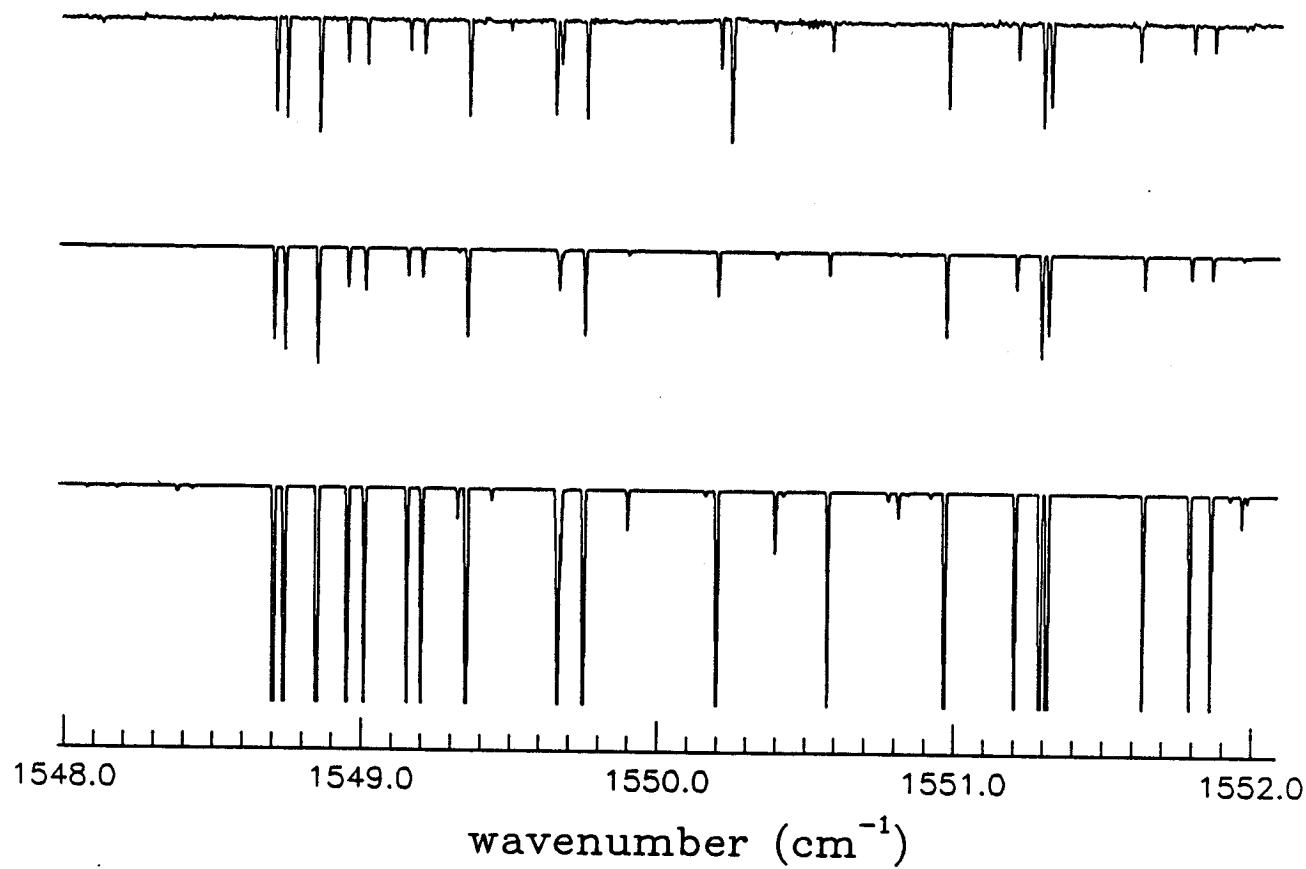


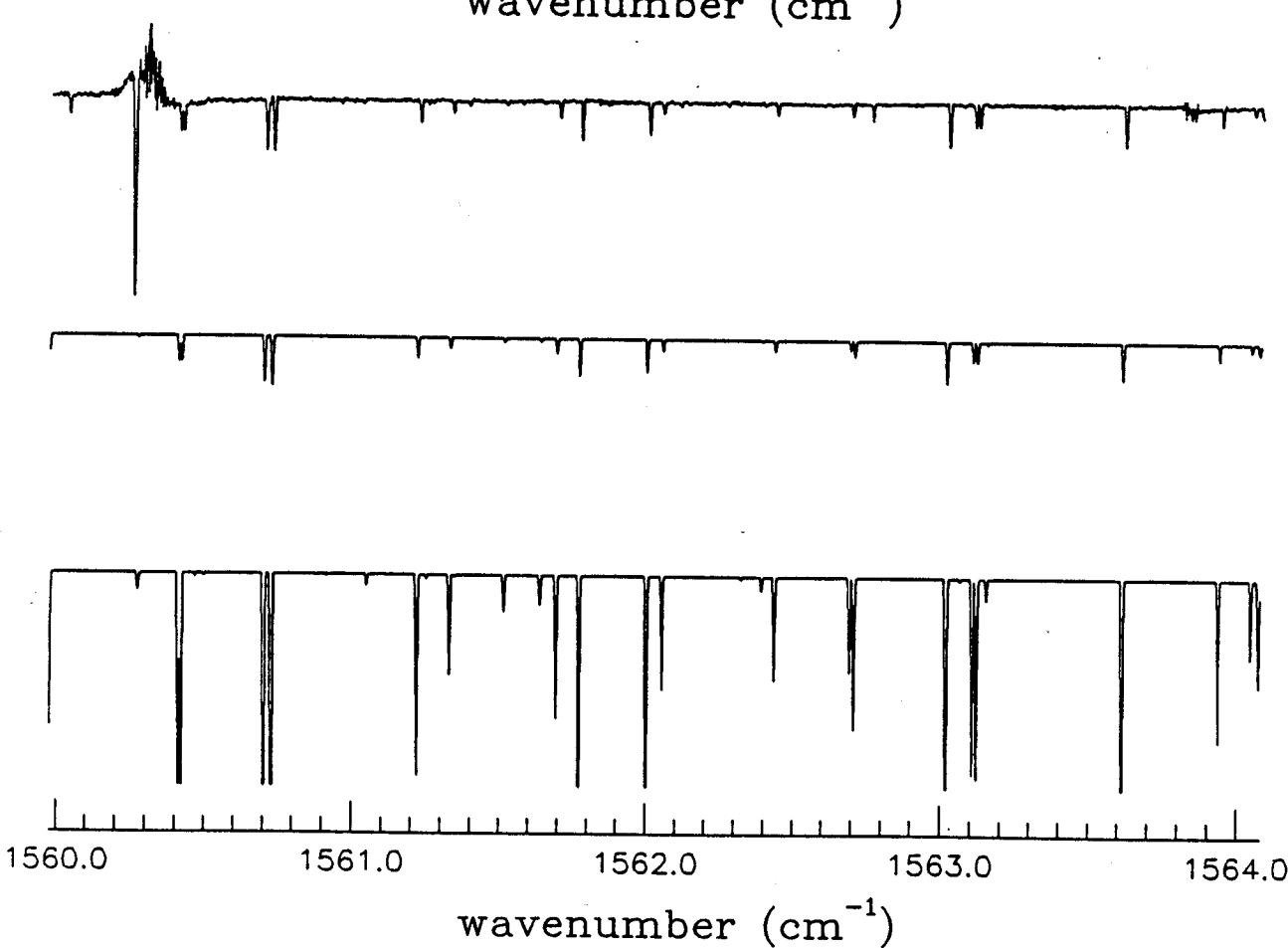
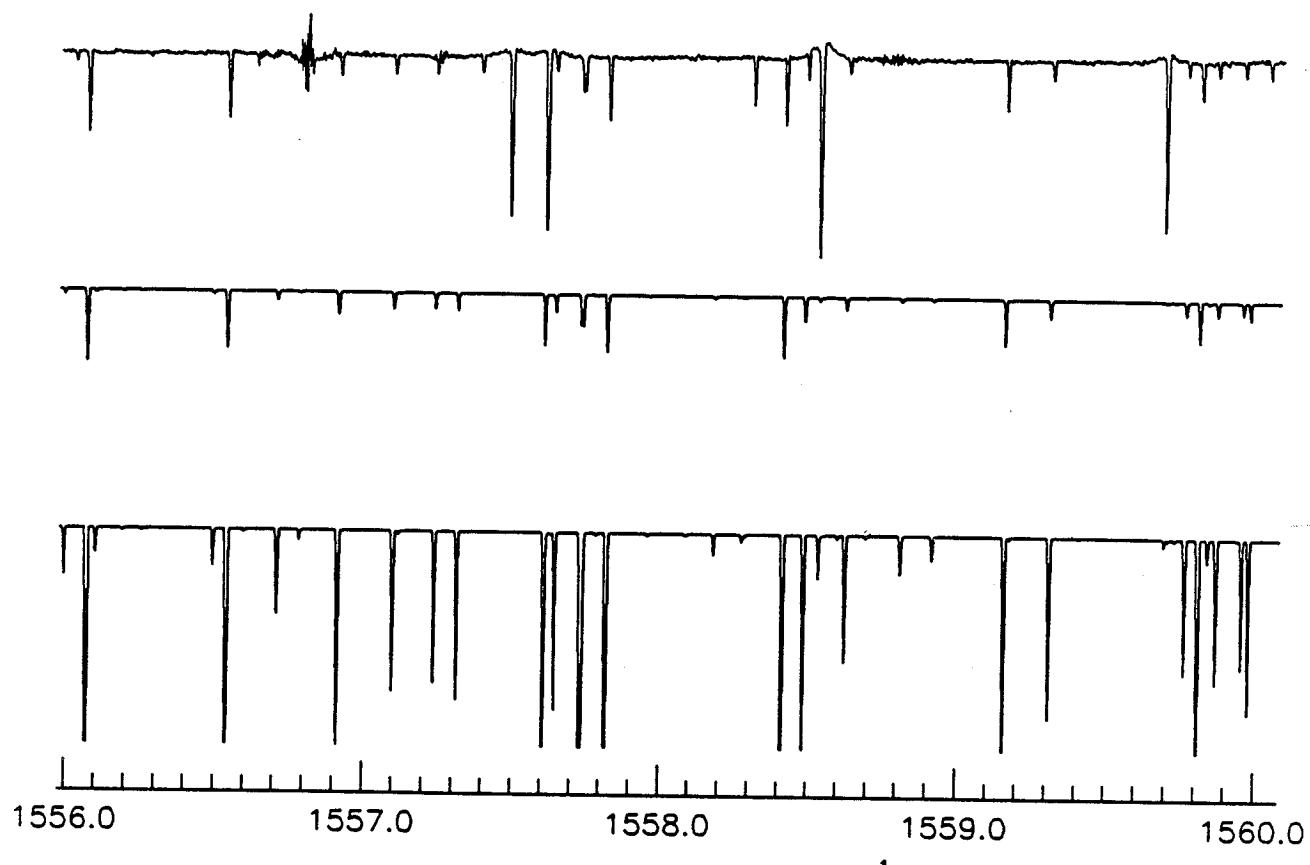


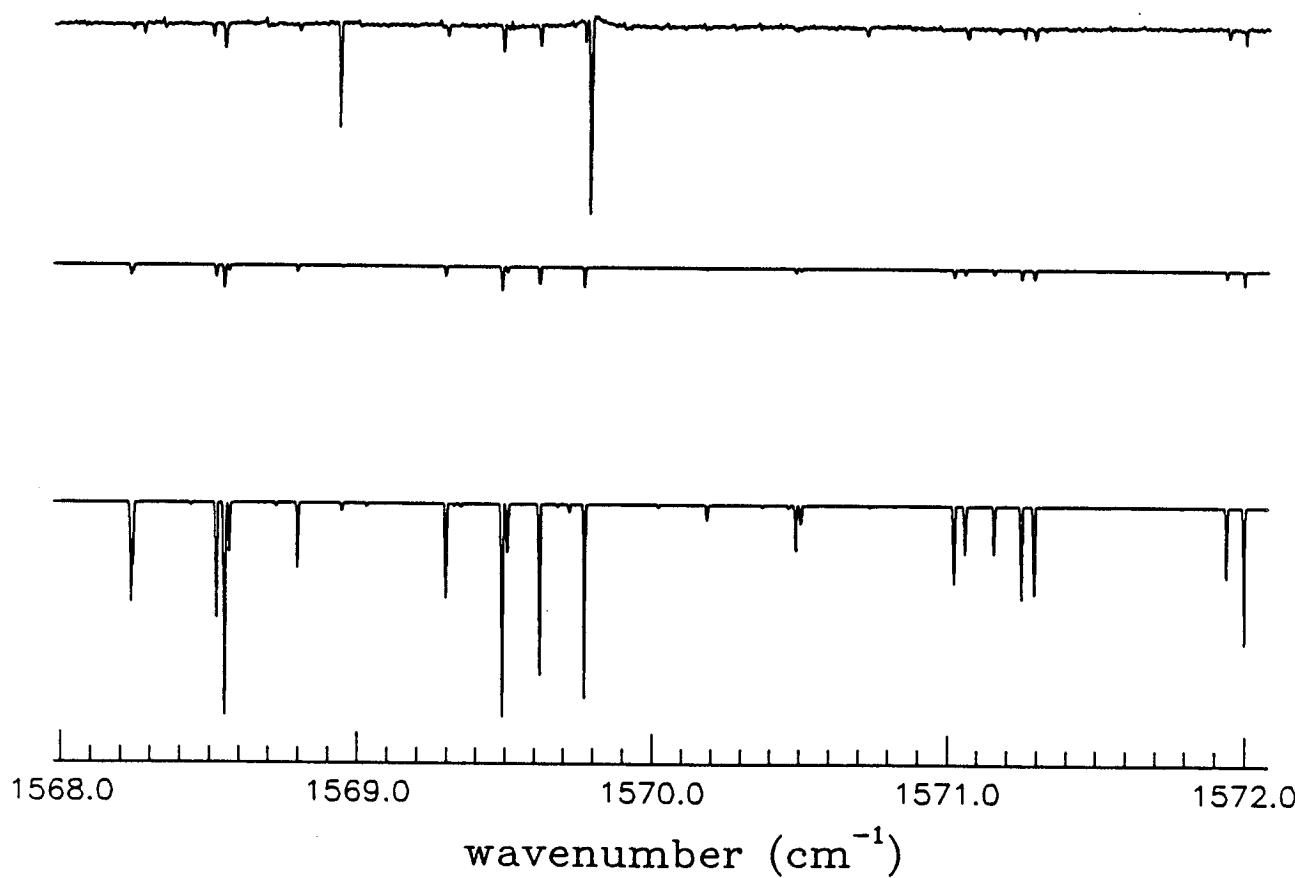
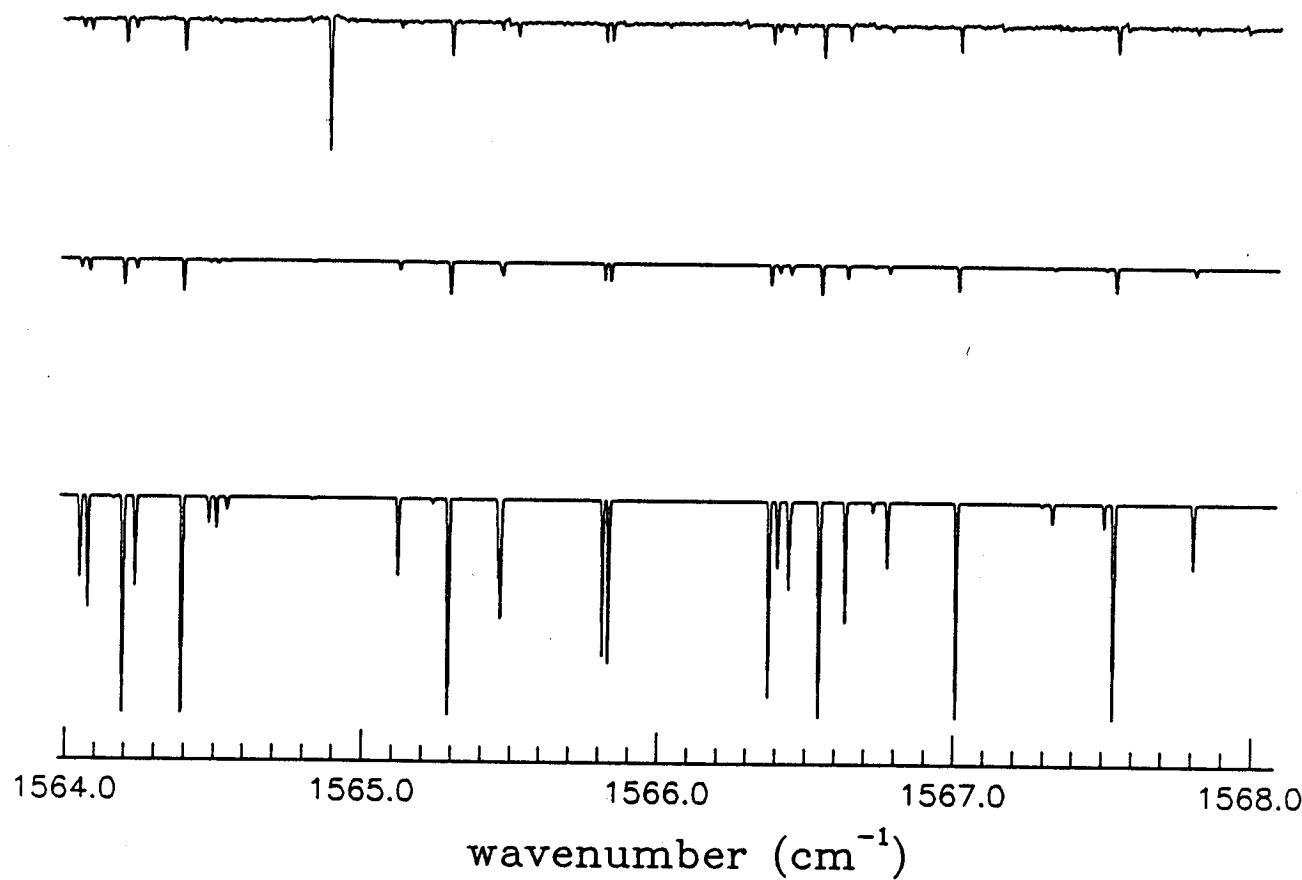












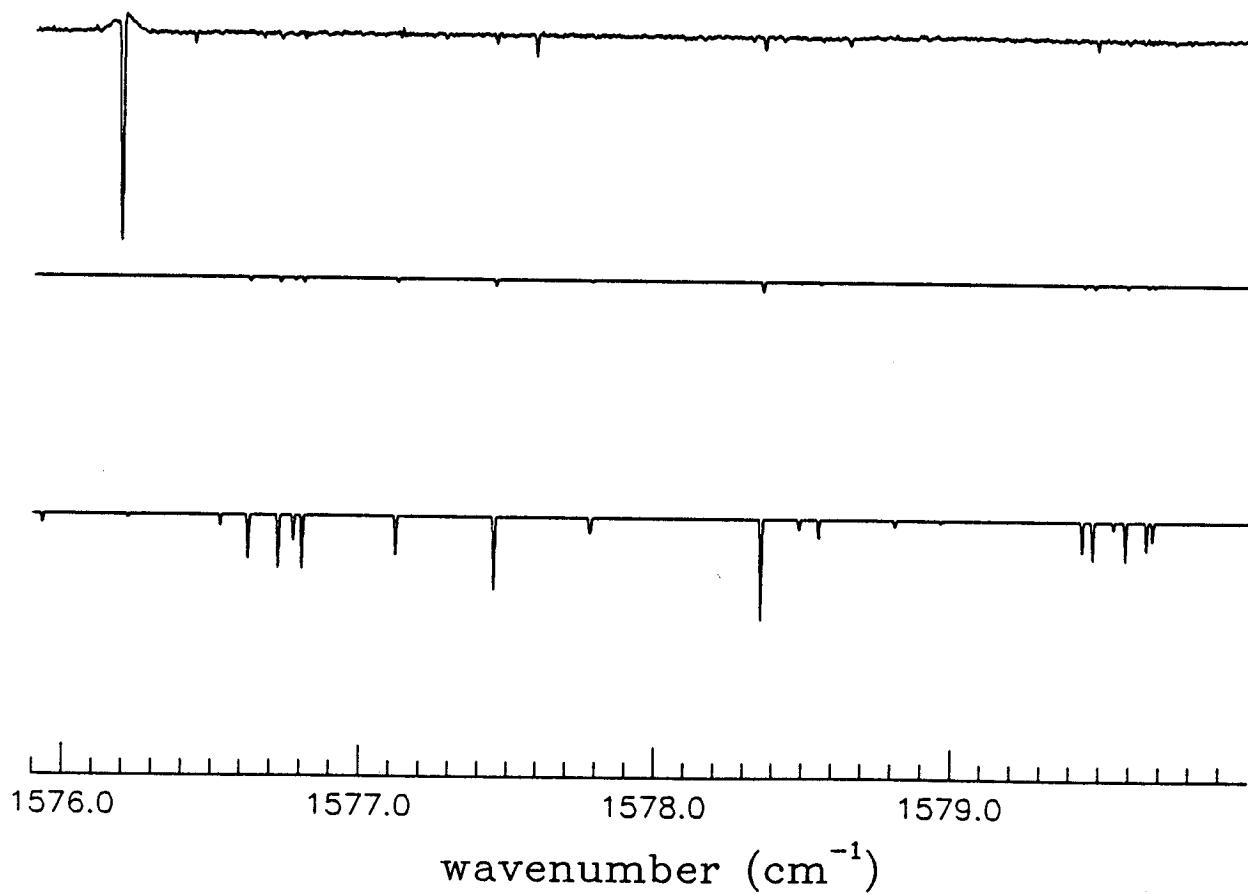
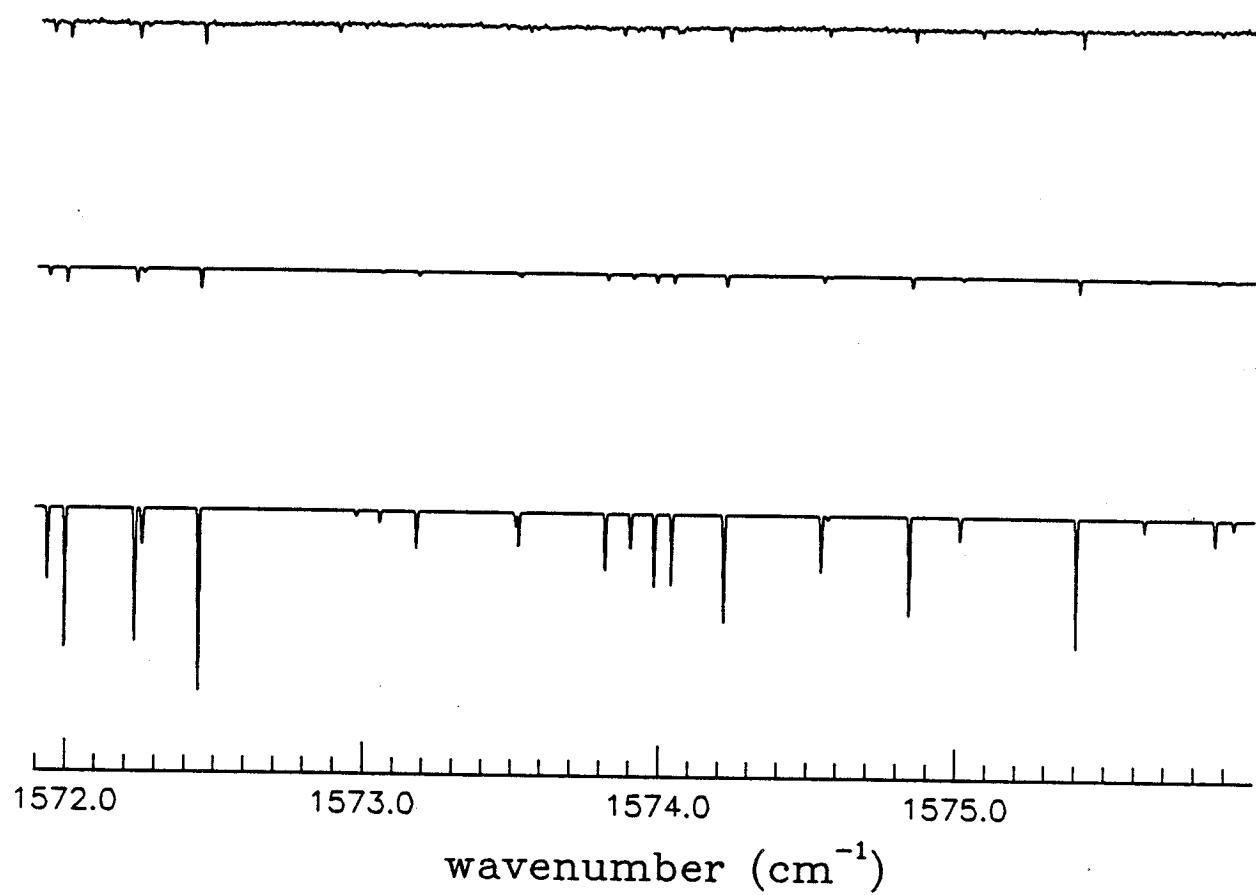


Table 3: Observed and Calculated Line Transitions of the v_3 , v_4 , and v_6 Bands of H_2CO from 900 cm^{-1} to 1580 cm^{-1} .

Frequencies are given in wavenumbers (cm^{-1}).

Line strengths are given in terms of $\text{cm}^{-2} \text{ atm}^{-1}$.

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|----------|-----------|------------|------------|
| 4 | 20 | 9 | 11 | | 21 | 10 | 11 | 900.0778 | | 0.1671E-03 | 4 | 22 | 10 | 12 | | 22 | 11 | 12 | 925.4467 | | 0.1434E-03 |
| 4 | 20 | 9 | 12 | | 21 | 10 | 12 | 900.0778 | | 0.1671E-03 | 4 | 21 | 10 | 12 | | 21 | 11 | 10 | 925.4721 | | 0.1328E-03 |
| 4 | 29 | 8 | 22 | 30 | 9 | 22 | | 902.4078 | | 0.8875E-04 | 4 | 21 | 10 | 11 | | 21 | 11 | 11 | 925.4721 | | 0.1328E-03 |
| 4 | 29 | 8 | 21 | 30 | 9 | 21 | | 902.4081 | | 0.8875E-04 | 4 | 20 | 10 | 11 | 20 | 11 | 10 | 925.8775 | | 0.1830E-03 | |
| 4 | 19 | 9 | 11 | 20 | 10 | 11 | | 902.5927 | | 0.2119E-03 | 4 | 20 | 10 | 10 | 20 | 11 | 10 | 925.8775 | | 0.1830E-03 | |
| 4 | 19 | 9 | 10 | 20 | 10 | 10 | | 902.5927 | | 0.2119E-03 | 4 | 19 | 10 | 9 | 19 | 11 | 9 | 925.8947 | | 0.2539E-03 | |
| 4 | 28 | 8 | 21 | 29 | 9 | 21 | | 904.9362 | | 0.9894E-04 | 4 | 19 | 10 | 10 | 19 | 11 | 8 | 925.8947 | | 0.2539E-03 | |
| 4 | 28 | 8 | 20 | 29 | 9 | 20 | | 904.9364 | | 0.9894E-04 | 4 | 18 | 10 | 9 | 18 | 11 | 7 | 925.9824 | | 0.2962E-03 | |
| 4 | 18 | 9 | 10 | 19 | 10 | 10 | | 905.1045 | | 0.2657E-03 | 4 | 18 | 10 | 8 | 18 | 11 | 8 | 925.9824 | | 0.2962E-03 | |
| 4 | 18 | 9 | 9 | 19 | 10 | 9 | | 905.1045 | | 0.2657E-03 | 4 | 17 | 10 | 7 | 17 | 11 | 7 | 926.0399 | | 0.3295E-03 | |
| 4 | 27 | 8 | 20 | 28 | 9 | 20 | | 907.4656 | | 0.1351E-03 | 4 | 17 | 10 | 8 | 17 | 11 | 6 | 926.0399 | | 0.3295E-03 | |
| 4 | 27 | 8 | 19 | 28 | 9 | 19 | | 907.4657 | | 0.1351E-03 | 3 | 21 | 7 | 15 | 21 | 11 | 10 | 926.0764 | | 0.8052E-04 | |
| 4 | 17 | 9 | 8 | 18 | 10 | 8 | | 907.6131 | | 0.3293E-03 | 3 | 21 | 7 | 14 | 21 | 11 | 11 | 926.0764 | | 0.8052E-04 | |
| 4 | 17 | 9 | 9 | 18 | 10 | 9 | | 907.6131 | | 0.3293E-03 | 4 | 18 | 10 | 7 | 18 | 11 | 5 | 926.1183 | | 0.3538E-03 | |
| 4 | 28 | 8 | 19 | 27 | 9 | 19 | | 909.9954 | | 0.1859E-03 | 4 | 18 | 10 | 6 | 18 | 11 | 6 | 926.1183 | | 0.3538E-03 | |
| 4 | 28 | 8 | 18 | 27 | 9 | 18 | | 909.9955 | | 0.1859E-03 | 4 | 15 | 10 | 5 | 15 | 11 | 5 | 926.1948 | | 0.3652E-03 | |
| 4 | 18 | 9 | 8 | 17 | 10 | 8 | | 910.1181 | | 0.4035E-03 | 4 | 15 | 10 | 6 | 15 | 11 | 4 | 926.1948 | | 0.3652E-03 | |
| 4 | 18 | 9 | 7 | 17 | 10 | 7 | | 910.1181 | | 0.4035E-03 | 4 | 14 | 10 | 5 | 14 | 11 | 3 | 926.2681 | | 0.3585E-03 | |
| 4 | 25 | 8 | 18 | 28 | 9 | 18 | | 912.5252 | | 0.2529E-03 | 4 | 14 | 10 | 4 | 14 | 11 | 4 | 926.2681 | | 0.3585E-03 | |
| 4 | 25 | 8 | 17 | 28 | 9 | 17 | | 912.5252 | | 0.2529E-03 | 4 | 13 | 10 | 4 | 13 | 11 | 2 | 926.3375 | | 0.3270E-03 | |
| 4 | 16 | 9 | 7 | 16 | 10 | 7 | | 912.6195 | | 0.4889E-03 | 4 | 13 | 10 | 3 | 13 | 11 | 3 | 926.3375 | | 0.3270E-03 | |
| 4 | 15 | 9 | 6 | 16 | 10 | 6 | | 912.6195 | | 0.4889E-03 | 4 | 12 | 10 | 3 | 12 | 11 | 1 | 926.4028 | | 0.2630E-03 | |
| 4 | 24 | 8 | 17 | 25 | 9 | 17 | | 915.0545 | | 0.3398E-03 | 4 | 12 | 10 | 2 | 12 | 11 | 2 | 926.4028 | | 0.2630E-03 | |
| 4 | 24 | 8 | 16 | 25 | 9 | 16 | | 915.0545 | | 0.3398E-03 | 4 | 11 | 10 | 2 | 11 | 11 | 0 | 926.4635 | | 0.1575E-03 | |
| 4 | 14 | 9 | 5 | 15 | 10 | 5 | | 915.1169 | | 0.5861E-03 | 4 | 11 | 10 | 1 | 11 | 11 | 1 | 926.4635 | | 0.1575E-03 | |
| 4 | 14 | 9 | 6 | 15 | 10 | 6 | | 915.1169 | | 0.5861E-03 | 4 | 9 | 9 | 0 | 10 | 10 | 0 | 927.5388 | | 0.1247E-02 | |
| 4 | 23 | 8 | 16 | 24 | 9 | 16 | | 917.5830 | | 0.4511E-03 | 4 | 9 | 9 | 1 | 10 | 10 | 1 | 927.5388 | | 0.1247E-02 | |
| 4 | 23 | 8 | 15 | 24 | 9 | 15 | | 917.5830 | | 0.4511E-03 | 4 | 19 | 8 | 11 | 20 | 9 | 11 | 927.6805 | -0.0001 | 0.1245E-02 | |
| 4 | 13 | 9 | 4 | 14 | 10 | 4 | | 917.8102 | | 0.8950E-03 | 4 | 19 | 8 | 12 | 20 | 9 | 12 | 927.6805 | -0.0001 | 0.1245E-02 | |
| 4 | 13 | 9 | 5 | 14 | 10 | 5 | | 917.8102 | | 0.8950E-03 | 4 | 28 | 7 | 22 | 29 | 8 | 22 | 930.0070 | | 0.5834E-04 | |
| 4 | 12 | 9 | 3 | 13 | 10 | 3 | | 920.0992 | | 0.8158E-03 | 4 | 28 | 7 | 21 | 29 | 8 | 21 | 930.0159 | | 0.5847E-04 | |
| 4 | 12 | 9 | 4 | 13 | 10 | 4 | | 920.0992 | | 0.8158E-03 | 4 | 18 | 8 | 11 | 19 | 9 | 11 | 930.1990 | 0.0000 | 0.1557E-02 | |
| 4 | 22 | 8 | 14 | 23 | 9 | 14 | | 920.1102 | | 0.5919E-03 | 4 | 18 | 8 | 10 | 19 | 9 | 10 | 930.1990 | 0.0000 | 0.1557E-02 | |
| 4 | 22 | 8 | 15 | 23 | 9 | 15 | | 920.1102 | | 0.5919E-03 | 4 | 27 | 7 | 21 | 28 | 8 | 21 | 932.5262 | | 0.8138E-04 | |
| 4 | 11 | 9 | 3 | 12 | 10 | 3 | | 922.5837 | | 0.9482E-03 | 4 | 27 | 7 | 20 | 28 | 8 | 20 | 932.5311 | | 0.8146E-04 | |
| 4 | 11 | 9 | 2 | 12 | 10 | 2 | | 922.5837 | | 0.9482E-03 | 4 | 17 | 8 | 10 | 18 | 9 | 10 | 932.7144 | 0.0000 | 0.1926E-02 | |
| 4 | 21 | 8 | 13 | 22 | 9 | 13 | | 922.6357 | -0.0010 | 0.7874E-03 | 4 | 17 | 8 | 9 | 18 | 9 | 9 | 932.7144 | 0.0000 | 0.1926E-02 | |
| 4 | 21 | 8 | 14 | 22 | 9 | 14 | | 922.6357 | -0.0010 | 0.7874E-03 | 4 | 26 | 7 | 20 | 27 | 8 | 20 | 935.0468 | | 0.1121E-03 | |
| 4 | 26 | 10 | 16 | 26 | 11 | 16 | | 925.0373 | | 0.8287E-04 | 4 | 26 | 7 | 19 | 27 | 8 | 19 | 935.0495 | | 0.1121E-03 | |
| 4 | 26 | 10 | 17 | 26 | 11 | 15 | | 925.0373 | | 0.8287E-04 | 4 | 16 | 8 | 8 | 17 | 9 | 8 | 935.2266 | 0.0001 | 0.2355E-02 | |
| 4 | 10 | 9 | 1 | 11 | 10 | 1 | | 925.0637 | | 0.1092E-02 | 4 | 16 | 8 | 9 | 17 | 9 | 9 | 935.2266 | 0.0001 | 0.2355E-02 | |
| 4 | 10 | 9 | 2 | 11 | 10 | 2 | | 925.0637 | | 0.1092E-02 | 4 | 25 | 7 | 19 | 26 | 8 | 19 | 937.5690 | | 0.1624E-03 | |
| 4 | 25 | 10 | 16 | 25 | 11 | 14 | | 925.1527 | | 0.8049E-04 | 4 | 25 | 7 | 18 | 26 | 8 | 18 | 937.5798 | | 0.1524E-03 | |
| 4 | 25 | 10 | 15 | 25 | 11 | 15 | | 925.1527 | | 0.8049E-04 | 4 | 15 | 8 | 7 | 16 | 9 | 7 | 937.7351 | 0.0001 | 0.2846E-02 | |
| 4 | 20 | 8 | 13 | 21 | 9 | 13 | | 925.1593 | -0.0002 | 0.9831E-03 | 4 | 15 | 8 | 8 | 16 | 9 | 8 | 937.7351 | 0.0001 | 0.2846E-02 | |
| 4 | 20 | 8 | 12 | 21 | 9 | 12 | | 925.1593 | -0.0002 | 0.9831E-03 | 4 | 24 | 7 | 18 | 25 | 8 | 18 | 940.0927 | | 0.2047E-03 | |
| 4 | 24 | 10 | 15 | 24 | 11 | 13 | | 925.2823 | | 0.1011E-03 | 4 | 24 | 7 | 17 | 25 | 8 | 17 | 940.0936 | | 0.2047E-03 | |
| 4 | 24 | 10 | 14 | 24 | 11 | 14 | | 925.2823 | | 0.1011E-03 | 4 | 14 | 8 | 7 | 15 | 9 | 7 | 940.2398 | 0.0003 | 0.3401E-02 | |
| 4 | 23 | 10 | 14 | 23 | 11 | 12 | | 925.3633 | | 0.1236E-03 | 4 | 14 | 8 | 6 | 15 | 9 | 6 | 940.2398 | 0.0003 | 0.3401E-02 | |
| 4 | 23 | 10 | 13 | 23 | 11 | 13 | | 925.3633 | | 0.1236E-03 | 4 | 23 | 7 | 17 | 24 | 8 | 17 | 942.6174 | | 0.2715E-03 | |
| 4 | 22 | 10 | 13 | 22 | 11 | 11 | | 925.4467 | | 0.1434E-03 | 4 | 23 | 7 | 16 | 24 | 8 | 16 | 942.6179 | | 0.2716E-03 | |

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OF POOR QUALITY

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|------------|------------|---|----|----|----|----|----|----|----------|------------|------------|----------|
| 4 | 13 | 8 | 6 | 14 | 9 | 6 | | 942.7402 | 0.0001 | 0.4021E-02 | 4 | 19 | 7 | 12 | 20 | 8 | 12 | 952.7155 | -0.0005 | 0.7452E-03 | |
| 4 | 13 | 8 | 5 | 14 | 9 | 5 | | 942.7402 | 0.0001 | 0.4021E-02 | 4 | 29 | 6 | 23 | 30 | 7 | 23 | 952.7637 | 0.2025E-03 | 0.2017E-03 | |
| 4 | 22 | 7 | 16 | 23 | 8 | 16 | | 945.1425 | 0.3559E-03 | 0.3559E-03 | 4 | 29 | 6 | 24 | 30 | 7 | 24 | 952.8178 | 0.8009E-02 | 0.8009E-02 | |
| 4 | 22 | 7 | 15 | 23 | 8 | 15 | | 945.1429 | 0.3559E-03 | 0.3559E-03 | 4 | 8 | 8 | 0 | 9 | 9 | 0 | 955.1719 | 0.0002 | 0.2863E-03 | |
| 4 | 12 | 8 | 4 | 13 | 9 | 4 | | 945.2363 | 0.0001 | 0.4703E-02 | 4 | 8 | 8 | 1 | 9 | 9 | 1 | 955.1719 | 0.0002 | 0.9307E-03 | |
| 4 | 12 | 8 | 5 | 13 | 9 | 5 | | 945.2363 | 0.0001 | 0.4703E-02 | 4 | 28 | 6 | 22 | 29 | 7 | 22 | 955.2114 | -0.0006 | 0.9307E-03 | |
| 4 | 21 | 7 | 15 | 22 | 8 | 15 | | 947.6676 | 0.4609E-03 | 0.4609E-03 | 4 | 18 | 7 | 11 | 19 | 8 | 11 | 955.2371 | -0.0006 | 0.2856E-03 | |
| 4 | 21 | 7 | 14 | 22 | 8 | 14 | | 947.6678 | 0.4609E-03 | 0.4609E-03 | 4 | 18 | 7 | 12 | 19 | 8 | 12 | 955.2371 | -0.0006 | 0.3998E-03 | |
| 4 | 11 | 8 | 4 | 12 | 9 | 4 | | 947.7277 | 0.0002 | 0.5446E-02 | 4 | 28 | 6 | 23 | 29 | 7 | 23 | 955.2487 | 0.3998E-03 | 0.2856E-03 | |
| 4 | 11 | 8 | 3 | 12 | 9 | 3 | | 947.7277 | 0.0002 | 0.5446E-02 | 4 | 27 | 6 | 21 | 28 | 7 | 21 | 957.6709 | 0.3991E-03 | 0.3991E-03 | |
| 4 | 20 | 7 | 14 | 21 | 8 | 14 | | 950.1921 | 0.5896E-03 | 0.5896E-03 | 4 | 27 | 6 | 22 | 28 | 7 | 22 | 957.8937 | 0.1149E-02 | 0.1149E-02 | |
| 4 | 20 | 7 | 13 | 21 | 8 | 13 | | 950.1922 | 0.5896E-03 | 0.5896E-03 | 4 | 17 | 7 | 11 | 18 | 8 | 11 | 957.7568 | -0.0002 | 0.5508E-03 | |
| 4 | 28 | 9 | 18 | 26 | 10 | 16 | | 950.2030 | 0.5045E-04 | 0.5045E-04 | 4 | 17 | 7 | 10 | 18 | 8 | 10 | 957.7567 | -0.0002 | 0.5512E-03 | |
| 4 | 28 | 9 | 17 | 26 | 10 | 17 | | 950.2030 | 0.5045E-04 | 0.5045E-04 | 4 | 26 | 8 | 26 | 27 | 7 | 26 | 960.1412 | 0.1401E-02 | 0.1401E-02 | |
| 4 | 10 | 8 | 3 | 11 | 9 | 3 | | 950.2142 | 0.0001 | 0.8245E-02 | 4 | 26 | 8 | 21 | 27 | 7 | 21 | 960.1557 | 0.0004 | 0.5508E-03 | |
| 4 | 10 | 8 | 2 | 11 | 9 | 2 | | 950.2142 | 0.0001 | 0.8245E-02 | 4 | 18 | 7 | 10 | 17 | 8 | 10 | 960.2736 | -0.0004 | 0.1008E-02 | |
| 4 | 25 | 9 | 17 | 25 | 10 | 15 | | 950.3216 | 0.6516E-04 | 0.6516E-04 | 4 | 16 | 7 | 9 | 17 | 8 | 9 | 960.2736 | -0.0004 | 0.7503E-03 | |
| 4 | 25 | 9 | 18 | 25 | 10 | 16 | | 950.3216 | 0.6516E-04 | 0.6516E-04 | 4 | 25 | 8 | 19 | 26 | 7 | 19 | 962.6211 | 0.7498E-03 | 0.1688E-02 | |
| 4 | 24 | 9 | 15 | 24 | 10 | 15 | | 950.4377 | 0.8291E-04 | 0.8291E-04 | 4 | 25 | 8 | 20 | 26 | 7 | 20 | 962.7874 | -0.0006 | 0.1688E-02 | |
| 4 | 24 | 9 | 16 | 24 | 10 | 14 | | 950.4377 | 0.8291E-04 | 0.8291E-04 | 4 | 15 | 7 | 9 | 16 | 8 | 9 | 962.7874 | -0.0006 | 0.1688E-02 | |
| 4 | 23 | 9 | 14 | 23 | 10 | 14 | | 950.5511 | 0.1039E-03 | 0.1039E-03 | 4 | 15 | 7 | 8 | 18 | 8 | 8 | 962.7874 | -0.0006 | 0.1008E-02 | |
| 4 | 23 | 9 | 15 | 23 | 10 | 13 | | 950.5511 | 0.1039E-03 | 0.1039E-03 | 4 | 24 | 6 | 18 | 25 | 7 | 18 | 965.1092 | 0.1008E-02 | 0.1008E-02 | |
| 4 | 22 | 9 | 14 | 22 | 10 | 12 | | 950.8617 | 0.1281E-03 | 0.1281E-03 | 4 | 24 | 6 | 19 | 25 | 7 | 19 | 965.1147 | 0.1008E-02 | 0.2012E-02 | |
| 4 | 22 | 9 | 13 | 22 | 10 | 13 | | 950.8617 | 0.1281E-03 | 0.1281E-03 | 4 | 14 | 7 | 7 | 15 | 8 | 7 | 965.2978 | -0.0005 | 0.2012E-02 | |
| 4 | 21 | 9 | 12 | 21 | 10 | 12 | | 950.7891 | 0.1554E-03 | 0.1554E-03 | 4 | 14 | 7 | 8 | 15 | 8 | 8 | 965.2978 | -0.0005 | 0.5099E-04 | |
| 4 | 21 | 9 | 13 | 21 | 10 | 11 | | 950.7891 | 0.1554E-03 | 0.1554E-03 | 4 | 17 | 10 | 7 | 16 | 11 | 5 | 967.1391 | 0.5099E-04 | 0.5099E-04 | |
| 4 | 20 | 9 | 12 | 20 | 10 | 10 | | 950.8732 | 0.1851E-03 | 0.1851E-03 | 4 | 17 | 10 | 8 | 16 | 11 | 6 | 967.1391 | 0.2370E-02 | 0.2370E-02 | |
| 4 | 20 | 9 | 11 | 20 | 10 | 11 | | 950.8732 | 0.1851E-03 | 0.1851E-03 | 4 | 23 | 8 | 17 | 24 | 7 | 17 | 967.6044 | 0.0021 | 0.1339E-02 | |
| 4 | 19 | 9 | 10 | 19 | 10 | 10 | | 950.9737 | 0.2165E-03 | 0.2165E-03 | 4 | 23 | 8 | 18 | 24 | 7 | 18 | 967.6077 | -0.0012 | 0.1338E-02 | |
| 4 | 19 | 9 | 11 | 19 | 10 | 9 | | 950.9737 | 0.2165E-03 | 0.2165E-03 | 4 | 13 | 7 | 6 | 14 | 8 | 6 | 967.8044 | -0.0006 | 0.2370E-02 | |
| 4 | 18 | 9 | 9 | 18 | 10 | 9 | | 951.0705 | 0.2480E-03 | 0.2480E-03 | 4 | 13 | 7 | 7 | 14 | 8 | 7 | 967.8044 | -0.0006 | 0.2370E-02 | |
| 4 | 18 | 9 | 10 | 18 | 10 | 8 | | 951.0705 | 0.2480E-03 | 0.2480E-03 | 4 | 18 | 10 | 8 | 17 | 11 | 6 | 969.4754 | 0.5260E-04 | 0.5260E-04 | |
| 4 | 17 | 9 | 9 | 17 | 10 | 7 | | 951.1634 | 0.2778E-03 | 0.2778E-03 | 4 | 18 | 10 | 9 | 17 | 11 | 7 | 969.4754 | 0.5260E-04 | 0.1754E-02 | |
| 4 | 17 | 9 | 8 | 17 | 10 | 8 | | 951.1634 | 0.2778E-03 | 0.2778E-03 | 4 | 22 | 6 | 16 | 23 | 7 | 16 | 970.1055 | 0.0013 | 0.1754E-02 | |
| 4 | 16 | 9 | 8 | 16 | 10 | 6 | | 951.2522 | 0.3034E-03 | 0.3034E-03 | 4 | 22 | 6 | 17 | 23 | 7 | 17 | 970.1074 | -0.0006 | 0.1754E-02 | |
| 4 | 16 | 9 | 7 | 16 | 10 | 7 | | 951.2522 | 0.3034E-03 | 0.3034E-03 | 4 | 12 | 7 | 6 | 13 | 8 | 6 | 970.3066 | -0.0006 | 0.2762E-02 | |
| 4 | 15 | 9 | 7 | 15 | 10 | 5 | | 951.3367 | 0.3214E-03 | 0.3214E-03 | 4 | 12 | 7 | 5 | 13 | 8 | 5 | 970.3066 | -0.0006 | 0.2762E-02 | |
| 4 | 15 | 9 | 8 | 15 | 10 | 6 | | 951.3367 | 0.3214E-03 | 0.3214E-03 | 6 | 29 | 3 | 26 | 30 | 6 | 25 | 970.9789 | 0.5686E-04 | 0.5686E-04 | |
| 4 | 14 | 9 | 6 | 14 | 10 | 4 | | 951.4168 | 0.3280E-03 | 0.3280E-03 | 4 | 19 | 10 | 10 | 18 | 11 | 8 | 971.8207 | 0.5074E-04 | 0.5074E-04 | |
| 4 | 14 | 9 | 5 | 14 | 10 | 5 | | 951.4168 | 0.3280E-03 | 0.3280E-03 | 4 | 19 | 10 | 9 | 18 | 11 | 7 | 971.8207 | 0.0008 | 0.2271E-02 | |
| 4 | 13 | 9 | 4 | 13 | 10 | 4 | | 951.4923 | 0.3186E-03 | 0.3186E-03 | 4 | 21 | 6 | 15 | 22 | 7 | 15 | 972.6113 | 0.0008 | 0.2271E-02 | |
| 4 | 13 | 9 | 5 | 13 | 10 | 3 | | 951.4923 | 0.3186E-03 | 0.3186E-03 | 4 | 21 | 6 | 16 | 22 | 7 | 16 | 972.6124 | -0.0003 | 0.2271E-02 | |
| 4 | 12 | 9 | 3 | 12 | 10 | 3 | | 951.5831 | 0.2878E-03 | 0.2878E-03 | 4 | 11 | 7 | 4 | 12 | 8 | 4 | 972.8043 | -0.0006 | 0.3184E-02 | |
| 4 | 12 | 9 | 4 | 12 | 10 | 2 | | 951.5831 | 0.2878E-03 | 0.2878E-03 | 4 | 11 | 7 | 5 | 12 | 8 | 5 | 972.8043 | -0.0006 | 0.6861E-04 | |
| 4 | 11 | 9 | 3 | 11 | 10 | 1 | | 951.6289 | 0.2294E-03 | 0.2294E-03 | 6 | 28 | 3 | 25 | 29 | 6 | 24 | 973.1118 | 0.1006E-03 | 0.1006E-03 | |
| 4 | 11 | 9 | 2 | 11 | 10 | 2 | | 951.6289 | 0.2294E-03 | 0.2294E-03 | 4 | 30 | 8 | 23 | 30 | 9 | 21 | 974.8557 | 0.1378E-03 | 0.1378E-03 | |
| 4 | 10 | 9 | 1 | 10 | 10 | 1 | | 951.6898 | 0.1362E-03 | 0.1362E-03 | 4 | 30 | 8 | 22 | 30 | 9 | 22 | 974.8563 | 0.1378E-03 | 0.1378E-03 | |
| 4 | 10 | 9 | 2 | 10 | 10 | 0 | | 951.6898 | 0.1362E-03 | 0.1362E-03 | 4 | 29 | 8 | 22 | 29 | 9 | 20 | 974.9727 | 0.1863E-03 | 0.1863E-03 | |
| 4 | 9 | 8 | 2 | 10 | 9 | 2 | | 952.6957 | 0.0002 | 0.7099E-02 | 4 | 29 | 8 | 21 | 29 | 9 | 21 | 974.9730 | 0.1863E-03 | 0.1863E-03 | |
| 4 | 9 | 8 | 1 | 10 | 9 | 1 | | 952.6957 | 0.0002 | 0.7099E-02 | 4 | 28 | 8 | 21 | 28 | 9 | 19 | 975.0901 | 0.1863E-03 | 0.1863E-03 | |
| 4 | 19 | 7 | 13 | 20 | 8 | 13 | | 952.7154 | -0.0005 | 0.7452E-03 | 4 | 28 | 8 | 20 | 28 | 9 | 20 | 975.0903 | 0.1863E-03 | 0.1863E-03 | |

| J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|----|----|----|----|---|----|----------|------------|------------|------------|------------|----|----|----|----|----|----|-----------|------------|------------|
| 20 | 6 | 14 | 21 | 7 | 14 | 975.1208 | 0.0005 | 0.2903E-02 | 0.0003 | 9.4571E-02 | 18 | 6 | 12 | 19 | 7 | 12 | 980.1485 | 0.0003 | 0.4571E-02 |
| 20 | 6 | 15 | 21 | 7 | 15 | 975.1214 | -0.0001 | 0.2903E-02 | 0.0001 | 0.4570E-02 | 18 | 6 | 13 | 19 | 7 | 13 | 980.1486 | 0.0001 | 0.4570E-02 |
| 20 | 6 | 16 | 21 | 7 | 15 | 975.1689 | 0.7945E-04 | 0.2484E-03 | 0.2484E-03 | 0.4607E-02 | 18 | 7 | 1 | 9 | 8 | 1 | 980.2866 | -0.0007 | 0.4607E-02 |
| 20 | 6 | 17 | 21 | 7 | 15 | 975.2077 | 0.2484E-03 | 0.2484E-03 | 0.2484E-03 | 0.4607E-02 | 18 | 7 | 2 | 9 | 8 | 2 | 980.2868 | -0.0007 | 0.4607E-02 |
| 20 | 6 | 17 | 21 | 7 | 15 | 975.2078 | -0.0007 | 0.3634E-02 | 0.3634E-02 | 0.9880E-04 | 18 | 7 | 1 | 25 | 6 | 20 | 981.0861 | 0.1280E-03 | 0.9880E-04 |
| 16 | 7 | 3 | 11 | 8 | 3 | 975.2970 | -0.0007 | 0.3634E-02 | 0.3634E-02 | 0.6343E-04 | 16 | 4 | 4 | 28 | 5 | 23 | 981.1454 | 0.1006E-03 | 0.6343E-04 |
| 16 | 7 | 4 | 11 | 8 | 4 | 975.2970 | 0.3267E-03 | 0.3267E-03 | 0.3267E-03 | 0.6343E-04 | 16 | 4 | 4 | 22 | 3 | 20 | 982.5188 | 0.1800E-03 | 0.6343E-04 |
| 20 | 8 | 19 | 28 | 9 | 17 | 975.3249 | 0.3267E-03 | 0.3267E-03 | 0.3267E-03 | 0.6343E-04 | 16 | 4 | 4 | 17 | 8 | 11 | 982.6868 | 0.0001 | 0.5630E-02 |
| 20 | 8 | 18 | 28 | 9 | 18 | 975.3249 | 0.3267E-03 | 0.3267E-03 | 0.3267E-03 | 0.6343E-04 | 16 | 4 | 4 | 17 | 8 | 12 | 982.6868 | 0.0000 | 0.5630E-02 |
| 20 | 8 | 17 | 25 | 9 | 17 | 975.4413 | 0.4234E-03 | 0.4234E-03 | 0.4234E-03 | 0.5131E-02 | 16 | 4 | 4 | 17 | 8 | 1 | 982.7429 | -0.0008 | 0.5131E-02 |
| 24 | 8 | 18 | 24 | 9 | 18 | 975.5586 | 0.5408E-03 | 0.5408E-03 | 0.5408E-03 | 0.1010E-03 | 16 | 4 | 4 | 23 | 3 | 20 | 983.0578 | 0.1006E-03 | 0.1010E-03 |
| 24 | 8 | 17 | 24 | 9 | 15 | 975.5586 | -0.0008 | 0.5805E-03 | 0.5805E-03 | 0.7990E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 983.4739 | 0.1800E-03 | 0.7990E-04 |
| 23 | 8 | 16 | 23 | 9 | 14 | 975.6763 | -0.0009 | 0.6805E-03 | 0.6805E-03 | 0.6851E-02 | 16 | 4 | 4 | 23 | 3 | 19 | 983.4739 | 0.1800E-03 | 0.6851E-02 |
| 23 | 8 | 15 | 23 | 9 | 15 | 975.6763 | -0.0009 | 0.6805E-03 | 0.6805E-03 | 0.1270E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 983.4739 | 0.1800E-03 | 0.1270E-03 |
| 22 | 8 | 15 | 22 | 9 | 13 | 975.7821 | -0.0005 | 0.6432E-03 | 0.6432E-03 | 0.2501E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 983.5131 | 0.2501E-03 | 0.2501E-03 |
| 22 | 8 | 14 | 22 | 9 | 14 | 975.7821 | -0.0005 | 0.6432E-03 | 0.6432E-03 | 0.9995E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 983.5131 | 0.1953E-03 | 0.9995E-04 |
| 21 | 8 | 13 | 21 | 9 | 13 | 975.8916 | -0.0003 | 0.1028E-02 | 0.1028E-02 | 0.7367E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 983.5131 | 0.7367E-04 | 0.7367E-04 |
| 21 | 8 | 14 | 21 | 9 | 12 | 975.8916 | -0.0003 | 0.1028E-02 | 0.1028E-02 | 0.9761E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 983.5131 | 0.9761E-04 | 0.9761E-04 |
| 20 | 8 | 13 | 20 | 9 | 12 | 975.9985 | 0.0000 | 0.1233E-02 | 0.1233E-02 | 0.8236E-02 | 16 | 4 | 4 | 23 | 3 | 19 | 983.8161 | 0.8236E-02 | 0.8236E-02 |
| 20 | 8 | 12 | 20 | 9 | 12 | 975.9985 | 0.0000 | 0.1453E-02 | 0.1453E-02 | 0.2899E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 987.1154 | 0.2899E-03 | 0.2899E-03 |
| 19 | 8 | 12 | 19 | 9 | 10 | 976.1024 | 0.0004 | 0.1453E-02 | 0.1453E-02 | 0.4662E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 987.2357 | 0.4662E-03 | 0.4662E-03 |
| 19 | 8 | 11 | 19 | 9 | 11 | 976.1024 | 0.0004 | 0.1453E-02 | 0.1453E-02 | 0.9891E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 987.2357 | 0.9891E-04 | 0.9891E-04 |
| 18 | 8 | 16 | 18 | 9 | 10 | 976.2032 | 0.0002 | 0.1680E-02 | 0.1680E-02 | 0.7601E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 987.6879 | 0.7601E-04 | 0.7601E-04 |
| 18 | 8 | 11 | 18 | 9 | 9 | 976.3004 | 0.0005 | 0.1904E-02 | 0.1904E-02 | 0.9736E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 987.6879 | 0.9736E-04 | 0.9736E-04 |
| 17 | 8 | 10 | 17 | 9 | 9 | 976.3004 | 0.0005 | 0.1904E-02 | 0.1904E-02 | 0.3436E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 987.6879 | 0.3436E-03 | 0.3436E-03 |
| 17 | 8 | 9 | 17 | 9 | 9 | 976.3937 | 0.0008 | 0.2110E-02 | 0.2110E-02 | 0.2899E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 988.1586 | 0.2899E-03 | 0.2899E-03 |
| 16 | 8 | 8 | 16 | 9 | 8 | 976.3937 | 0.0008 | 0.2110E-02 | 0.2110E-02 | 0.7367E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 988.1586 | 0.7367E-04 | 0.7367E-04 |
| 15 | 8 | 7 | 15 | 9 | 7 | 976.4830 | 0.0005 | 0.2279E-02 | 0.2279E-02 | 0.9761E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 988.1586 | 0.9761E-04 | 0.9761E-04 |
| 15 | 8 | 6 | 15 | 9 | 6 | 976.5580 | 0.0005 | 0.2389E-02 | 0.2389E-02 | 0.3436E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 988.1586 | 0.3436E-03 | 0.3436E-03 |
| 14 | 8 | 7 | 14 | 9 | 5 | 976.5580 | 0.0005 | 0.2389E-02 | 0.2389E-02 | 0.9761E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 988.1586 | 0.9761E-04 | 0.9761E-04 |
| 13 | 8 | 6 | 13 | 9 | 4 | 976.6484 | 0.0005 | 0.2413E-02 | 0.2413E-02 | 0.9397E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 989.2191 | 0.9397E-04 | 0.9397E-04 |
| 13 | 8 | 5 | 13 | 9 | 5 | 976.6484 | 0.0005 | 0.2413E-02 | 0.2413E-02 | 0.7601E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 989.2191 | 0.7601E-04 | 0.7601E-04 |
| 12 | 8 | 4 | 12 | 9 | 4 | 976.7240 | 0.0005 | 0.2321E-02 | 0.2321E-02 | 0.9736E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 990.1991 | 0.9736E-04 | 0.9736E-04 |
| 12 | 8 | 3 | 12 | 9 | 3 | 976.7240 | 0.0005 | 0.2321E-02 | 0.2321E-02 | 0.3436E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 990.1991 | 0.3436E-03 | 0.3436E-03 |
| 11 | 8 | 3 | 11 | 9 | 2 | 976.7943 | 0.0008 | 0.2076E-02 | 0.2076E-02 | 0.4662E-03 | 16 | 4 | 4 | 23 | 3 | 19 | 992.7079 | 0.4662E-03 | 0.4662E-03 |
| 11 | 8 | 4 | 11 | 9 | 2 | 976.7943 | 0.0008 | 0.2076E-02 | 0.2076E-02 | 0.9761E-04 | 16 | 4 | 4 | 23 | 3 | 19 | 992.7079 | 0.9761E-04 | 0.9761E-04 |
| 10 | 8 | 2 | 10 | 9 | 1 | 976.8666 | 0.0003 | 0.1641E-02 | 0.1641E-02 | 0.1149E-01 | 16 | 4 | 4 | 23 | 5 | 18 | 992.2975 | 0.1149E-01 | 0.1149E-01 |
| 10 | 8 | 3 | 10 | 9 | 1 | 976.8666 | 0.0003 | 0.1641E-02 | 0.1641E-02 | 0.5234E-04 | 16 | 4 | 4 | 23 | 5 | 18 | 992.4241 | 0.5234E-04 | 0.5234E-04 |
| 9 | 8 | 1 | 9 | 9 | 1 | 976.9201 | 0.0005 | 0.9870E-03 | 0.9870E-03 | 0.9398E-04 | 16 | 4 | 4 | 23 | 5 | 19 | 992.7079 | 0.9398E-04 | 0.9398E-04 |
| 9 | 8 | 2 | 10 | 8 | 2 | 977.6332 | 0.0004 | 0.2882E-04 | 0.2882E-04 | 0.7614E-04 | 16 | 4 | 4 | 23 | 5 | 19 | 993.3094 | 0.7614E-04 | 0.7614E-04 |
| 9 | 7 | 3 | 10 | 8 | 3 | 977.7848 | -0.0007 | 0.4109E-02 | 0.4109E-02 | 0.1149E-01 | 16 | 4 | 4 | 23 | 5 | 19 | 995.1958 | 0.1149E-01 | 0.1149E-01 |
| 9 | 7 | 4 | 10 | 8 | 4 | 977.7848 | -0.0007 | 0.4109E-02 | 0.4109E-02 | 0.4607E-02 | 16 | 4 | 4 | 23 | 5 | 19 | 995.2134 | -0.0007 | 0.4607E-02 |
| 9 | 7 | 5 | 10 | 8 | 5 | 977.8217 | 0.0004 | 0.9006E-04 | 0.9006E-04 | 0.5811E-04 | 16 | 4 | 4 | 23 | 5 | 19 | 995.2764 | 0.5811E-04 | 0.5811E-04 |
| 9 | 7 | 6 | 10 | 8 | 6 | 977.8217 | 0.0004 | 0.9006E-04 | 0.9006E-04 | 0.6248E-04 | 16 | 4 | 4 | 23 | 5 | 19 | 995.2764 | 0.6248E-04 | 0.6248E-04 |
| 8 | 6 | 21 | 28 | 7 | 13 | 979.8979 | -0.0007 | 0.9459E-04 | 0.9459E-04 | 0.7401E-04 | 16 | 4 | 4 | 23 | 5 | 19 | 995.3538 | 0.7401E-04 | 0.7401E-04 |
| 8 | 6 | 22 | 28 | 7 | 14 | 979.8979 | -0.0007 | 0.9459E-04 | 0.9459E-04 | 0.1333E-01 | 16 | 4 | 4 | 23 | 5 | 19 | 995.3538 | 0.1333E-01 | 0.1333E-01 |
| 8 | 6 | 21 | 28 | 7 | 15 | 979.8979 | -0.0007 | 0.9459E-04 | 0.9459E-04 | 0.2828E-03 | 16 | 4 | 4 | 23 | 5 | 19 | 995.3538 | 0.2828E-03 | 0.2828E-03 |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 4 | 22 | 5 | 18 | | 23 | 6 | 18 | 995.5447 | | 0.7887E-03 | 4 | 17 | 7 | 10 | | 17 | 8 | 10 | 1001.3772 | 0.0000 | 0.1315E-02 |
| 6 | 17 | 3 | 14 | | 18 | 8 | 13 | 995.8352 | | 0.8288E-04 | 4 | 17 | 7 | 11 | | 17 | 8 | 9 | 1001.3772 | 0.0000 | 0.1315E-02 |
| 6 | 28 | 2 | 27 | | 29 | 5 | 24 | 998.1952 | | 0.1660E-03 | 4 | 16 | 7 | 9 | | 16 | 8 | 9 | 1001.4727 | -0.0001 | 0.1474E-02 |
| 4 | 19 | 9 | 10 | | 18 | 10 | 8 | 998.9397 | | 0.5071E-04 | 4 | 16 | 7 | 10 | | 16 | 8 | 8 | 1001.4727 | -0.0001 | 0.1474E-02 |
| 4 | 19 | 9 | 11 | | 18 | 10 | 9 | 998.9397 | | 0.5071E-04 | 4 | 15 | 7 | 9 | | 15 | 8 | 7 | 1001.5647 | -0.0002 | 0.1616E-02 |
| 6 | 18 | 3 | 14 | | 17 | 8 | 11 | 997.8747 | | 0.6973E-04 | 4 | 15 | 7 | 8 | | 15 | 8 | 8 | 1001.5647 | -0.0002 | 0.1616E-02 |
| 4 | 21 | 5 | 18 | | 22 | 8 | 18 | 997.6801 | | 0.1078E-02 | 4 | 14 | 7 | 8 | | 14 | 8 | 8 | 1001.6530 | -0.0001 | 0.1727E-02 |
| 4 | 11 | 6 | 5 | | 12 | 7 | 5 | 997.7151 | -0.0001 | 0.1529E-01 | 4 | 14 | 7 | 7 | | 14 | 8 | 7 | 1001.6530 | -0.0001 | 0.1727E-02 |
| 4 | 11 | 6 | 6 | | 12 | 7 | 6 | 997.7151 | -0.0001 | 0.1529E-01 | 4 | 13 | 7 | 7 | | 13 | 8 | 5 | 1001.7371 | -0.0004 | 0.1791E-02 |
| 4 | 21 | 5 | 17 | | 22 | 8 | 17 | 997.8472 | | 0.1848E-02 | 4 | 13 | 7 | 6 | | 13 | 8 | 6 | 1001.7371 | -0.0004 | 0.1791E-02 |
| 4 | 20 | 1 | 19 | | 21 | 4 | 17 | 998.0792 | | 0.5412E-04 | 4 | 12 | 7 | 6 | | 12 | 8 | 4 | 1001.8167 | -0.0005 | 0.1791E-02 |
| 6 | 18 | 3 | 13 | | 17 | 8 | 12 | 998.1288 | | 0.7553E-04 | 4 | 12 | 7 | 5 | | 12 | 8 | 5 | 1001.8167 | -0.0005 | 0.1791E-02 |
| 4 | 29 | 4 | 28 | | 30 | 5 | 28 | 998.2451 | | 0.4135E-03 | 4 | 11 | 7 | 5 | | 11 | 8 | 3 | 1001.8915 | -0.0002 | 0.1705E-02 |
| 6 | 27 | 2 | 28 | | 28 | 5 | 23 | 999.8131 | | 0.2850E-03 | 4 | 11 | 7 | 4 | | 11 | 8 | 4 | 1001.8915 | -0.0002 | 0.1705E-02 |
| 4 | 30 | 7 | 24 | | 30 | 8 | 22 | 1000.0122 | | 0.6338E-04 | 4 | 10 | 7 | 3 | | 10 | 8 | 3 | 1001.9611 | -0.0004 | 0.1512E-02 |
| 4 | 30 | 7 | 23 | | 30 | 8 | 23 | 1000.0592 | | 0.6524E-04 | 4 | 10 | 7 | 4 | | 10 | 8 | 2 | 1001.9611 | -0.0004 | 0.1512E-02 |
| 4 | 28 | 5 | 15 | | 21 | 6 | 15 | 1000.0990 | | 0.1389E-02 | 4 | 9 | 7 | 3 | | 9 | 8 | 1 | 1002.0253 | -0.0003 | 0.1185E-02 |
| 4 | 29 | 7 | 23 | | 29 | 8 | 21 | 1000.1319 | | 0.8912E-04 | 4 | 9 | 7 | 2 | | 9 | 8 | 2 | 1002.0253 | -0.0003 | 0.1185E-02 |
| 6 | 15 | 3 | 13 | | 16 | 6 | 16 | 1000.1429 | | 0.6361E-04 | 4 | 8 | 7 | 1 | | 8 | 8 | 1 | 1002.0838 | | 0.8938E-03 |
| 4 | 29 | 7 | 22 | | 29 | 8 | 22 | 1000.1500 | | 0.8970E-04 | 4 | 8 | 7 | 2 | | 8 | 8 | 0 | 1002.0838 | | 0.8938E-03 |
| 4 | 20 | 5 | 18 | | 21 | 6 | 16 | 1000.2007 | 0.0014 | 0.1365E-02 | 4 | 19 | 5 | 14 | | 20 | 6 | 14 | 1002.5324 | 0.0008 | 0.1784E-02 |
| 4 | 10 | 6 | 4 | | 11 | 7 | 4 | 1000.2125 | -0.0001 | 0.1736E-01 | 4 | 19 | 5 | 15 | | 20 | 6 | 15 | 1002.5927 | 0.0009 | 0.1746E-02 |
| 4 | 10 | 6 | 5 | | 11 | 7 | 5 | 1000.2125 | -0.0001 | 0.1736E-01 | 6 | 14 | 3 | 12 | | 15 | 6 | 9 | 1002.6032 | | 0.5605E-04 |
| 4 | 28 | 7 | 22 | | 28 | 8 | 20 | 1000.2363 | | 0.1214E-03 | 4 | 9 | 6 | 4 | | 10 | 7 | 4 | 1002.7051 | -0.0001 | 0.1952E-01 |
| 4 | 28 | 7 | 21 | | 28 | 8 | 21 | 1000.2452 | | 0.1217E-03 | 4 | 9 | 6 | 3 | | 10 | 7 | 3 | 1002.7051 | -0.0001 | 0.1952E-01 |
| 4 | 27 | 7 | 21 | | 27 | 8 | 19 | 1000.3389 | | 0.1626E-03 | 6 | 14 | 3 | 11 | | 15 | 6 | 10 | 1002.8147 | | 0.5815E-04 |
| 4 | 27 | 7 | 20 | | 27 | 8 | 20 | 1000.3438 | | 0.1628E-03 | 4 | 18 | 1 | 17 | | 19 | 4 | 15 | 1003.0270 | | 0.5318E-04 |
| 4 | 28 | 7 | 20 | | 26 | 8 | 18 | 1000.4424 | | 0.2147E-03 | 6 | 28 | 2 | 25 | | 27 | 5 | 22 | 1003.2892 | | 0.4710E-03 |
| 4 | 28 | 7 | 19 | | 26 | 8 | 19 | 1000.4452 | | 0.2148E-03 | 4 | 11 | 8 | 4 | | 10 | 9 | 2 | 1003.4404 | | 0.1380E-03 |
| 6 | 15 | 3 | 12 | | 16 | 6 | 11 | 1000.4573 | | 0.6720E-04 | 4 | 11 | 8 | 3 | | 10 | 9 | 1 | 1003.4404 | | 0.1360E-03 |
| 4 | 25 | 7 | 19 | | 25 | 8 | 17 | 1000.5471 | | 0.2793E-03 | 4 | 27 | 4 | 24 | | 28 | 5 | 24 | 1003.8919 | | 0.8119E-03 |
| 4 | 25 | 7 | 18 | | 25 | 8 | 18 | 1000.5487 | | 0.2794E-03 | 4 | 29 | 4 | 25 | | 30 | 5 | 25 | 1004.4900 | | 0.3367E-03 |
| 4 | 19 | 1 | 18 | | 20 | 4 | 16 | 1000.6284 | | 0.5453E-04 | 4 | 18 | 6 | 13 | | 19 | 6 | 13 | 1004.9792 | 0.0003 | 0.2211E-02 |
| 4 | 24 | 7 | 18 | | 24 | 8 | 16 | 1000.6527 | | 0.3581E-03 | 4 | 18 | 5 | 14 | | 19 | 6 | 14 | 1005.0140 | 0.0006 | 0.2198E-02 |
| 4 | 24 | 7 | 17 | | 24 | 8 | 17 | 1000.6536 | | 0.3582E-03 | 4 | 8 | 6 | 3 | | 9 | 7 | 3 | 1005.1922 | -0.0005 | 0.2173E-01 |
| 4 | 24 | 0 | 24 | | 25 | 3 | 22 | 1000.7386 | | 0.8588E-04 | 4 | 8 | 6 | 2 | | 9 | 7 | 2 | 1005.1922 | -0.0005 | 0.2173E-01 |
| 4 | 23 | 7 | 17 | | 23 | 8 | 15 | 1000.7588 | | 0.4525E-03 | 4 | 17 | 1 | 16 | | 18 | 4 | 14 | 1005.2997 | | 0.5020E-04 |
| 4 | 23 | 7 | 16 | | 23 | 8 | 16 | 1000.7593 | | 0.4525E-03 | 4 | 12 | 8 | 4 | | 11 | 9 | 2 | 1005.7909 | | 0.2210E-03 |
| 4 | 22 | 7 | 16 | | 22 | 8 | 14 | 1000.8648 | | 0.5831E-03 | 4 | 25 | 2 | 24 | | 26 | 5 | 21 | 1006.6366 | | 0.7494E-03 |
| 4 | 22 | 7 | 15 | | 22 | 8 | 15 | 1000.8652 | | 0.5832E-03 | 4 | 26 | 4 | 23 | | 27 | 5 | 23 | 1006.6633 | -0.0016 | 0.1116E-02 |
| 4 | 21 | 7 | 15 | | 21 | 8 | 13 | 1000.9704 | | 0.8901E-03 | 4 | 28 | 4 | 24 | | 29 | 5 | 24 | 1007.1268 | | 0.4402E-03 |
| 4 | 21 | 7 | 14 | | 21 | 8 | 14 | 1000.9706 | | 0.8901E-03 | 4 | 23 | 6 | 23 | | 24 | 3 | 21 | 1007.1422 | | 0.1235E-03 |
| 4 | 20 | 7 | 14 | | 20 | 8 | 12 | 1001.0749 | | 0.8322E-03 | 4 | 17 | 5 | 12 | | 18 | 6 | 12 | 1007.4378 | 0.0005 | 0.2733E-02 |
| 4 | 20 | 7 | 13 | | 20 | 8 | 13 | 1001.0760 | | 0.8322E-03 | 4 | 17 | 5 | 13 | | 18 | 6 | 13 | 1007.4573 | 0.0004 | 0.2724E-02 |
| 4 | 10 | 8 | 3 | | 9 | 9 | 1 | 1001.0844 | | 0.5561E-04 | 4 | 7 | 8 | 1 | | 8 | 7 | 1 | 1007.6737 | -0.0005 | 0.2402E-01 |
| 4 | 10 | 8 | 2 | | 9 | 9 | 0 | 1001.0844 | | 0.5561E-04 | 4 | 7 | 8 | 2 | | 8 | 7 | 2 | 1007.6737 | -0.0005 | 0.2402E-01 |
| 4 | 28 | 4 | 25 | | 29 | 5 | 25 | 1001.0874 | | 0.5832E-03 | 4 | 13 | 8 | 6 | | 12 | 9 | 4 | 1008.1361 | | 0.2978E-03 |
| 4 | 19 | 7 | 12 | | 19 | 8 | 12 | 1001.1779 | -0.0002 | 0.9870E-03 | 4 | 13 | 8 | 5 | | 12 | 9 | 3 | 1008.1361 | | 0.2978E-03 |
| 4 | 19 | 7 | 13 | | 19 | 8 | 11 | 1001.1779 | -0.0002 | 0.9870E-03 | 4 | 25 | 4 | 22 | | 26 | 5 | 22 | 1009.4060 | -0.0015 | 0.1514E-02 |
| 4 | 18 | 7 | 12 | | 18 | 8 | 10 | 1001.2788 | 0.0000 | 0.1150E-02 | 4 | 27 | 4 | 23 | | 28 | 5 | 23 | 1009.8220 | 0.5590E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 24 | 2 | 23 | 25 | 5 | 20 | | 1009.8689 | | 0.1150E-02 | 4 | 10 | 5 | 6 | 11 | 6 | 6 | 1024.8304 | 0.0002 | 0.8350E-02 | |
| 4 | 16 | 5 | 11 | 17 | 6 | 11 | | 1009.9066 | 0.0006 | 0.3333E-02 | 4 | 19 | 4 | 16 | 20 | 5 | 16 | 1025.4487 | -0.0007 | 0.7223E-02 | |
| 4 | 16 | 5 | 12 | 17 | 6 | 12 | | 1009.9171 | 0.0004 | 0.3327E-02 | 4 | 30 | 6 | 24 | 30 | 7 | 24 | 1025.4888 | | 0.3405E-03 | |
| 4 | 6 | 6 | 8 | 7 | 7 | 0 | | 1010.1489 | -0.0002 | 0.2639E-01 | 4 | 29 | 6 | 23 | 29 | 7 | 23 | 1025.5012 | | 0.4711E-03 | |
| 4 | 6 | 6 | 1 | 7 | 7 | 1 | | 1010.1489 | -0.0002 | 0.2639E-01 | 4 | 28 | 6 | 22 | 28 | 7 | 22 | 1025.5264 | | 0.6427E-03 | |
| 4 | 14 | 8 | 7 | 13 | 9 | 5 | | 1010.4762 | | 0.3590E-03 | 4 | 29 | 6 | 24 | 29 | 7 | 22 | 1025.5547 | | 0.4692E-03 | |
| 4 | 14 | 8 | 6 | 13 | 9 | 4 | | 1010.4762 | | 0.3590E-03 | 4 | 28 | 6 | 23 | 28 | 7 | 21 | 1025.5615 | | 0.6410E-03 | |
| 4 | 24 | 4 | 21 | 25 | 5 | 21 | | 1012.1240 | -0.0013 | 0.2028E-02 | 4 | 27 | 6 | 21 | 27 | 7 | 21 | 1025.5634 | | 0.8645E-03 | |
| 4 | 15 | 5 | 10 | 16 | 6 | 10 | | 1012.3836 | 0.0018 | 0.4011E-02 | 4 | 30 | 6 | 25 | 30 | 7 | 23 | 1025.5892 | | 0.3384E-03 | |
| 4 | 15 | 5 | 11 | 16 | 6 | 11 | | 1012.3891 | -0.0036 | 0.4007E-02 | 4 | 27 | 6 | 22 | 27 | 7 | 20 | 1025.5881 | | 0.8631E-03 | |
| 4 | 26 | 4 | 22 | 27 | 5 | 22 | | 1012.5642 | | 0.6890E-03 | 4 | 28 | 6 | 20 | 28 | 7 | 20 | 1025.6108 | | 0.1147E-02 | |
| 4 | 15 | 8 | 8 | 14 | 9 | 6 | | 1012.8113 | | 0.4013E-03 | 4 | 26 | 6 | 21 | 28 | 7 | 19 | 1025.8252 | | 0.1145E-02 | |
| 4 | 15 | 8 | 7 | 14 | 9 | 5 | | 1012.8113 | | 0.4013E-03 | 4 | 25 | 6 | 19 | 25 | 7 | 19 | 1025.8677 | | 0.1499E-02 | |
| 4 | 23 | 4 | 19 | 24 | 5 | 19 | | 1013.0002 | 0.0018 | 0.1704E-02 | 4 | 25 | 6 | 26 | 25 | 7 | 18 | 1025.8766 | | 0.1498E-02 | |
| 4 | 22 | 6 | 22 | 23 | 3 | 20 | | 1013.2315 | | 0.1727E-03 | 4 | 24 | 6 | 18 | 24 | 7 | 18 | 1025.7325 | | 0.1932E-02 | |
| 4 | 23 | 4 | 20 | 24 | 5 | 20 | | 1014.8205 | -0.0012 | 0.2682E-02 | 4 | 24 | 6 | 19 | 24 | 7 | 17 | 1025.7382 | | 0.1931E-02 | |
| 4 | 14 | 5 | 9 | 15 | 6 | 9 | | 1014.8672 | 0.0018 | 0.4763E-02 | 4 | 23 | 6 | 17 | 23 | 7 | 17 | 1025.8044 | 0.0022 | 0.2453E-02 | |
| 4 | 14 | 5 | 10 | 15 | 6 | 10 | | 1014.8698 | -0.0009 | 0.4781E-02 | 4 | 23 | 6 | 18 | 23 | 7 | 16 | 1025.8078 | -0.0011 | 0.2453E-02 | |
| 4 | 16 | 8 | 8 | 15 | 9 | 6 | | 1015.1416 | | 0.4241E-03 | 4 | 22 | 6 | 18 | 22 | 7 | 16 | 1025.8818 | 0.0016 | 0.3069E-02 | |
| 4 | 16 | 8 | 9 | 15 | 9 | 7 | | 1015.1416 | | 0.4241E-03 | 4 | 22 | 6 | 17 | 22 | 7 | 15 | 1025.8838 | -0.0003 | 0.3069E-02 | |
| 4 | 25 | 4 | 21 | 26 | 5 | 21 | | 1015.3403 | | 0.8243E-03 | 4 | 21 | 6 | 16 | 21 | 7 | 15 | 1025.9639 | 0.0011 | 0.3781E-02 | |
| 4 | 22 | 4 | 18 | 23 | 5 | 18 | | 1016.0439 | 0.0009 | 0.2444E-02 | 4 | 20 | 6 | 14 | 20 | 7 | 14 | 1026.0494 | 0.0010 | 0.4586E-02 | |
| 4 | 13 | 5 | 8 | 14 | 6 | 8 | | 1017.3553 | 0.0008 | 0.5584E-02 | 4 | 20 | 6 | 15 | 20 | 7 | 13 | 1026.0500 | 0.0004 | 0.4585E-02 | |
| 4 | 13 | 5 | 9 | 14 | 6 | 9 | | 1017.3565 | -0.0004 | 0.5583E-02 | 4 | 19 | 6 | 13 | 19 | 7 | 13 | 1026.1373 | 0.0007 | 0.5472E-02 | |
| 4 | 17 | 8 | 9 | 16 | 9 | 7 | | 1017.4875 | | 0.4289E-03 | 4 | 19 | 6 | 14 | 19 | 7 | 12 | 1026.1376 | 0.0003 | 0.5472E-02 | |
| 4 | 17 | 8 | 10 | 16 | 9 | 8 | | 1017.4875 | | 0.4289E-03 | 4 | 10 | 7 | 3 | 9 | 8 | 1 | 1026.2018 | | 0.1087E-03 | |
| 4 | 22 | 4 | 19 | 23 | 5 | 19 | | 1017.4989 | -0.0009 | 0.3502E-02 | 4 | 10 | 7 | 4 | 9 | 8 | 2 | 1026.2018 | | 0.1087E-03 | |
| 4 | 29 | 3 | 27 | 30 | 4 | 27 | | 1017.6322 | | 0.1891E-03 | 4 | 18 | 6 | 12 | 18 | 7 | 12 | 1026.2266 | 0.0005 | 0.6421E-02 | |
| 4 | 24 | 4 | 20 | 25 | 5 | 20 | | 1018.1372 | | 0.9580E-03 | 4 | 18 | 6 | 13 | 18 | 7 | 11 | 1026.2268 | 0.0004 | 0.6421E-02 | |
| 4 | 21 | 6 | 21 | 22 | 3 | 19 | | 1019.0101 | | 0.2338E-03 | 4 | 17 | 6 | 11 | 17 | 7 | 11 | 1026.3165 | 0.0004 | 0.7402E-02 | |
| 4 | 21 | 4 | 17 | 22 | 5 | 17 | | 1019.0121 | 0.0006 | 0.3404E-02 | 4 | 17 | 6 | 12 | 17 | 7 | 10 | 1026.3165 | 0.0003 | 0.7402E-02 | |
| 4 | 18 | 8 | 10 | 17 | 9 | 8 | | 1019.7891 | | 0.4181E-03 | 4 | 17 | 6 | 11 | 16 | 7 | 9 | 1026.4060 | 0.0002 | 0.8375E-02 | |
| 4 | 18 | 8 | 11 | 17 | 9 | 9 | | 1019.7891 | | 0.4181E-03 | 4 | 16 | 6 | 10 | 16 | 7 | 10 | 1026.4943 | 0.0001 | 0.9285E-02 | |
| 4 | 12 | 5 | 7 | 13 | 8 | 7 | | 1019.8463 | 0.0005 | 0.6484E-02 | 4 | 15 | 6 | 9 | 15 | 7 | 9 | 1026.4943 | 0.0002 | 0.9285E-02 | |
| 4 | 12 | 5 | 8 | 13 | 6 | 8 | | 1019.8468 | 0.0000 | 0.6484E-02 | 4 | 15 | 6 | 10 | 15 | 7 | 8 | 1026.5315 | | 0.1282E-02 | |
| 4 | 21 | 4 | 18 | 22 | 5 | 18 | | 1020.1818 | -0.0008 | 0.4515E-02 | 4 | 14 | 6 | 9 | 14 | 7 | 7 | 1026.5807 | 0.0001 | 0.1007E-01 | |
| 6 | 23 | 2 | 22 | 24 | 5 | 19 | | 1020.9421 | | 0.1083E-02 | 4 | 13 | 6 | 7 | 13 | 7 | 7 | 1026.8646 | 0.0000 | 0.1064E-01 | |
| 4 | 28 | 3 | 28 | 29 | 4 | 28 | | 1021.0847 | | 0.2398E-03 | 4 | 13 | 6 | 8 | 13 | 7 | 6 | 1026.8646 | 0.0000 | 0.1064E-01 | |
| 4 | 20 | 4 | 18 | 21 | 5 | 18 | | 1021.9155 | 0.0003 | 0.4616E-02 | 4 | 14 | 6 | 8 | 14 | 7 | 8 | 1026.8937 | 0.0001 | 0.1093E-01 | |
| 4 | 19 | 8 | 12 | 18 | 9 | 10 | | 1022.1066 | | 0.3951E-03 | 4 | 12 | 6 | 7 | 12 | 7 | 5 | 1026.8937 | 0.0000 | 0.1093E-01 | |
| 4 | 19 | 8 | 11 | 18 | 9 | 9 | | 1022.1066 | | 0.3951E-03 | 4 | 11 | 6 | 5 | 11 | 7 | 5 | 1026.8217 | -0.0002 | 0.1082E-01 | |
| 4 | 11 | 5 | 6 | 12 | 6 | 6 | | 1022.3385 | 0.0003 | 0.7391E-02 | 4 | 21 | 8 | 14 | 20 | 9 | 12 | 1026.7308 | | 0.3280E-03 | |
| 4 | 11 | 5 | 7 | 12 | 6 | 7 | | 1022.3387 | 0.0001 | 0.7390E-02 | 4 | 21 | 8 | 13 | 20 | 9 | 11 | 1026.7308 | | 0.3280E-03 | |
| 4 | 20 | 4 | 17 | 21 | 5 | 17 | | 1022.8109 | -0.0008 | 0.5747E-02 | 4 | 12 | 6 | 8 | 12 | 7 | 6 | 1026.7450 | 0.0000 | 0.1093E-01 | |
| 6 | 22 | 2 | 21 | 23 | 5 | 18 | | 1023.7434 | | 0.1193E-02 | 4 | 12 | 6 | 7 | 12 | 7 | 5 | 1026.7450 | 0.0000 | 0.1093E-01 | |
| 4 | 20 | 8 | 12 | 19 | 9 | 10 | | 1024.4204 | | 0.3633E-03 | 4 | 11 | 6 | 5 | 11 | 7 | 5 | 1026.8217 | -0.0002 | 0.1082E-01 | |
| 4 | 20 | 8 | 13 | 19 | 9 | 11 | | 1024.4204 | | 0.3633E-03 | 4 | 11 | 6 | 6 | 11 | 7 | 4 | 1026.8217 | -0.0002 | 0.1082E-01 | |
| 4 | 27 | 3 | 25 | 28 | 4 | 25 | | 1024.4370 | | 0.3364E-03 | 4 | 10 | 6 | 5 | 10 | 7 | 3 | 1026.8937 | 0.0000 | 0.1020E-01 | |
| 4 | 20 | 0 | 20 | 21 | 3 | 18 | | 1024.4836 | | 0.3061E-03 | 4 | 10 | 6 | 4 | 10 | 7 | 4 | 1026.8937 | 0.0000 | 0.1020E-01 | |
| 4 | 19 | 4 | 15 | 20 | 5 | 15 | | 1024.7629 | 0.0000 | 0.6105E-02 | 4 | 9 | 6 | 3 | 9 | 7 | 3 | 1026.9609 | -0.0001 | 0.8967E-02 | |
| 4 | 10 | 5 | 5 | 11 | 6 | 5 | | 1024.8304 | 0.0003 | 0.8350E-02 | 4 | 9 | 6 | 4 | 9 | 7 | 2 | 1026.9609 | -0.0001 | 0.8967E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 4 | 8 | 6 | 2 | | 8 | 7 | 2 | 1027.0227 | -0.0001 | 0.6974E-02 | 4 | 25 | 8 | 18 | | 24 | 9 | 18 | 1035.9434 | | 0.1714E-03 |
| 4 | 8 | 6 | 3 | | 8 | 7 | 1 | 1027.0227 | -0.0001 | 0.6974E-02 | 4 | 25 | 8 | 17 | | 24 | 9 | 15 | 1035.9434 | | 0.1714E-03 |
| 4 | 7 | 6 | 2 | | 7 | 7 | 0 | 1027.0787 | -0.0003 | 0.4060E-02 | 6 | 24 | 2 | 22 | | 25 | 5 | 21 | 1036.8615 | | 0.8300E-04 |
| 4 | 7 | 6 | 1 | | 7 | 7 | 1 | 1027.0787 | -0.0003 | 0.4060E-02 | 4 | 27 | 2 | 28 | | 28 | 3 | 28 | 1036.8364 | | 0.9915E-03 |
| 4 | 9 | 5 | 4 | 10 | 8 | 4 | | 1027.3206 | 0.0001 | 0.9328E-02 | 4 | 23 | 3 | 21 | | 24 | 4 | 21 | 1036.9708 | 0.0003 | 0.1120E-02 |
| 4 | 9 | 5 | 5 | 10 | 8 | 5 | | 1027.3207 | 0.0001 | 0.9328E-02 | 6 | 27 | 3 | 25 | | 27 | 6 | 22 | 1036.9969 | | 0.8022E-04 |
| 4 | 18 | 4 | 14 | 19 | 5 | 14 | | 1027.5620 | 0.0000 | 0.7897E-02 | 6 | 23 | 1 | 23 | | 24 | 4 | 20 | 1037.2057 | | 0.2957E-03 |
| 4 | 28 | 3 | 24 | 27 | 4 | 24 | | 1027.6952 | | 0.4628E-03 | 4 | 5 | 5 | 1 | | 6 | 6 | 1 | 1037.2421 | 0.0000 | 0.1331E-01 |
| 4 | 18 | 4 | 15 | 19 | 5 | 15 | | 1028.0784 | -0.0006 | 0.8986E-02 | 4 | 6 | 5 | 0 | | 6 | 6 | 0 | 1037.2421 | 0.0000 | 0.1331E-01 |
| 4 | 29 | 2 | 28 | 30 | 3 | 28 | | 1028.1382 | | 0.4876E-03 | 6 | 28 | 3 | 24 | | 26 | 6 | 21 | 1037.3563 | | 0.7338E-04 |
| 4 | 11 | 7 | 5 | 10 | 8 | 3 | | 1028.5555 | | 0.1773E-03 | 6 | 17 | 2 | 16 | | 18 | 5 | 13 | 1037.4391 | | 0.1352E-02 |
| 4 | 11 | 7 | 4 | 10 | 8 | 2 | | 1028.5555 | | 0.1773E-03 | 6 | 23 | 2 | 21 | | 24 | 5 | 20 | 1037.5484 | | 0.1077E-03 |
| 4 | 22 | 8 | 14 | 21 | 9 | 12 | | 1029.0378 | | 0.2880E-03 | 6 | 25 | 3 | 23 | | 25 | 6 | 20 | 1037.6689 | | 0.8684E-04 |
| 4 | 22 | 8 | 15 | 21 | 9 | 13 | | 1029.0378 | | 0.2880E-03 | 4 | 29 | 0 | 29 | | 30 | 1 | 29 | 1037.7213 | | 0.3644E-03 |
| 6 | 28 | 2 | 19 | 21 | 5 | 16 | | 1029.2993 | | 0.1345E-02 | 4 | 25 | 3 | 22 | | 26 | 4 | 22 | 1037.8584 | | 0.8167E-03 |
| 4 | 29 | 3 | 26 | 30 | 4 | 26 | | 1029.4972 | | 0.1801E-03 | 4 | 15 | 7 | 8 | | 14 | 8 | 6 | 1037.9199 | | 0.3492E-03 |
| 4 | 19 | 0 | 19 | 20 | 3 | 17 | | 1029.8804 | | 0.3886E-03 | 4 | 15 | 7 | 9 | | 14 | 8 | 7 | 1037.9199 | | 0.3492E-03 |
| 4 | 8 | 5 | 3 | 9 | 6 | 3 | | 1029.8808 | 0.0002 | 0.1031E-01 | 6 | 24 | 3 | 22 | | 24 | 6 | 19 | 1037.9377 | | 0.9974E-04 |
| 4 | 8 | 5 | 4 | 9 | 6 | 4 | | 1029.8808 | 0.0002 | 0.1031E-01 | 6 | 23 | 3 | 21 | | 23 | 6 | 18 | 1038.1659 | | 0.1111E-03 |
| 4 | 17 | 4 | 13 | 18 | 5 | 13 | | 1030.3187 | -0.0002 | 0.1001E-01 | 4 | 26 | 8 | 19 | | 25 | 9 | 17 | 1038.2410 | | 0.1393E-03 |
| 4 | 17 | 4 | 14 | 18 | 5 | 14 | | 1030.6949 | -0.0006 | 0.1099E-01 | 4 | 26 | 8 | 18 | | 25 | 9 | 16 | 1038.2411 | | 0.1393E-03 |
| 4 | 25 | 3 | 23 | 26 | 4 | 23 | | 1030.8858 | | 0.6300E-03 | 6 | 22 | 3 | 20 | | 22 | 6 | 17 | 1038.3568 | | 0.1201E-03 |
| 4 | 12 | 7 | 6 | 11 | 8 | 4 | | 1030.9039 | | 0.2402E-03 | 4 | 14 | 4 | 10 | | 15 | 5 | 10 | 1038.3802 | -0.0003 | 0.1820E-01 |
| 4 | 12 | 7 | 5 | 11 | 8 | 3 | | 1030.9039 | | 0.2402E-03 | 6 | 22 | 2 | 20 | | 23 | 5 | 19 | 1038.4718 | | 0.1378E-03 |
| 4 | 23 | 8 | 15 | 22 | 9 | 13 | | 1031.3422 | | 0.2458E-03 | 4 | 14 | 4 | 11 | | 15 | 5 | 11 | 1038.5006 | -0.0001 | 0.1880E-01 |
| 4 | 23 | 8 | 16 | 22 | 9 | 14 | | 1031.3422 | | 0.2458E-03 | 6 | 21 | 3 | 19 | | 21 | 6 | 16 | 1038.5139 | | 0.1258E-03 |
| 4 | 28 | 3 | 25 | 29 | 4 | 25 | | 1031.5463 | | 0.2515E-03 | 6 | 20 | 3 | 18 | | 20 | 6 | 15 | 1038.6418 | | 0.1277E-03 |
| 6 | 19 | 2 | 18 | 20 | 5 | 15 | | 1032.0416 | | 0.1379E-02 | 6 | 19 | 3 | 17 | | 19 | 6 | 14 | 1038.7444 | | 0.1254E-03 |
| 6 | 24 | 1 | 24 | 25 | 4 | 21 | | 1032.2848 | | 0.8779E-04 | 6 | 18 | 3 | 16 | | 18 | 6 | 13 | 1038.8258 | | 0.1192E-03 |
| 4 | 7 | 5 | 2 | 8 | 6 | 2 | | 1032.2913 | -0.0002 | 0.1130E-01 | 6 | 17 | 3 | 15 | | 17 | 6 | 12 | 1038.8899 | | 0.1095E-03 |
| 4 | 7 | 5 | 3 | 8 | 6 | 3 | | 1032.2913 | -0.0002 | 0.1130E-01 | 6 | 16 | 3 | 14 | | 16 | 6 | 11 | 1038.9402 | | 0.9701E-04 |
| 4 | 28 | 2 | 27 | 29 | 3 | 27 | | 1032.5528 | | 0.7005E-03 | 6 | 15 | 3 | 13 | | 15 | 6 | 10 | 1038.9801 | | 0.8266E-04 |
| 4 | 16 | 4 | 12 | 17 | 5 | 12 | | 1033.0381 | -0.0004 | 0.1243E-01 | 6 | 14 | 3 | 12 | | 14 | 6 | 9 | 1038.9912 | | 0.6751E-04 |
| 4 | 13 | 7 | 7 | 12 | 8 | 5 | | 1033.2472 | | 0.2914E-03 | 6 | 13 | 3 | 11 | | 13 | 6 | 8 | 1039.0389 | | 0.5258E-04 |
| 4 | 13 | 7 | 6 | 12 | 8 | 4 | | 1033.2472 | | 0.2914E-03 | 4 | 17 | 0 | 17 | | 18 | 3 | 15 | 1039.1650 | | 0.5488E-03 |
| 4 | 16 | 4 | 13 | 17 | 5 | 13 | | 1033.3052 | -0.0005 | 0.1331E-01 | 6 | 13 | 3 | 10 | | 13 | 6 | 7 | 1039.1768 | | 0.5388E-04 |
| 4 | 27 | 3 | 24 | 28 | 4 | 24 | | 1033.5970 | | 0.3461E-03 | 6 | 14 | 3 | 11 | | 14 | 6 | 8 | 1039.2238 | | 0.7005E-04 |
| 4 | 24 | 8 | 17 | 23 | 9 | 15 | | 1033.6439 | | 0.2071E-03 | 6 | 15 | 3 | 12 | | 15 | 6 | 9 | 1039.2948 | | 0.8736E-04 |
| 4 | 24 | 8 | 16 | 23 | 9 | 14 | | 1033.6439 | | 0.2071E-03 | 6 | 16 | 3 | 13 | | 16 | 6 | 10 | 1039.3944 | | 0.1051E-03 |
| 4 | 24 | 3 | 22 | 25 | 4 | 22 | | 1033.9558 | | 0.8469E-03 | 6 | 21 | 2 | 19 | | 22 | 5 | 18 | 1039.4524 | | 0.1737E-03 |
| 4 | 18 | 0 | 18 | 19 | 3 | 16 | | 1034.5504 | | 0.4700E-03 | 6 | 17 | 3 | 14 | | 17 | 6 | 11 | 1039.5293 | | 0.1227E-03 |
| 6 | 18 | 2 | 17 | 19 | 5 | 14 | | 1034.7552 | | 0.1382E-02 | 4 | 28 | 1 | 28 | | 29 | 2 | 28 | 1039.8558 | | 0.1736E-03 |
| 4 | 6 | 5 | 2 | 7 | 6 | 2 | | 1034.7897 | 0.0000 | 0.1229E-01 | 6 | 18 | 3 | 15 | | 18 | 6 | 12 | 1039.7050 | | 0.1396E-03 |
| 4 | 6 | 5 | 1 | 7 | 6 | 1 | | 1034.7897 | 0.0000 | 0.1229E-01 | 4 | 22 | 3 | 20 | | 23 | 4 | 20 | 1039.9182 | -0.0002 | 0.1484E-02 |
| 4 | 29 | 1 | 29 | 30 | 2 | 29 | | 1035.2872 | | 0.1230E-03 | 6 | 19 | 3 | 18 | | 19 | 6 | 13 | 1039.9271 | | 0.1553E-03 |
| 4 | 14 | 7 | 8 | 13 | 8 | 6 | | 1035.5858 | | 0.3279E-03 | 6 | 18 | 2 | 15 | | 17 | 5 | 12 | 1040.0928 | | 0.1289E-02 |
| 4 | 14 | 7 | 7 | 13 | 8 | 5 | | 1035.5858 | | 0.3279E-03 | 6 | 20 | 3 | 17 | | 20 | 6 | 14 | 1040.1998 | | 0.1894E-03 |
| 4 | 26 | 3 | 23 | 27 | 4 | 23 | | 1035.6851 | | 0.4680E-03 | 4 | 24 | 3 | 21 | | 25 | 4 | 21 | 1040.2054 | | 0.7717E-03 |
| 4 | 15 | 4 | 11 | 18 | 5 | 11 | | 1035.7241 | -0.0004 | 0.1517E-01 | 4 | 16 | 7 | 9 | | 15 | 8 | 7 | 1040.2500 | | 0.3560E-03 |
| 6 | 25 | 2 | 23 | 28 | 5 | 22 | | 1035.8010 | -0.0004 | 0.6314E-04 | 4 | 16 | 7 | 10 | | 15 | 8 | 8 | 1040.2500 | | 0.3560E-03 |
| 4 | 15 | 4 | 12 | 18 | 5 | 12 | | 1035.9072 | -0.0004 | 0.1591E-01 | 6 | 20 | 2 | 18 | | 21 | 5 | 17 | 1040.5018 | | 0.2156E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 21 | 3 | 18 | 21 | 6 | 15 | | 1040.5254 | | 0.1817E-03 | 6 | 15 | 2 | 13 | 16 | 5 | 12 | 1047.1470 | | 0.4588E-03 | |
| 4 | 27 | 8 | 20 | 28 | 9 | 18 | | 1040.5372 | | 0.1114E-03 | 4 | 19 | 7 | 13 | 18 | 8 | 11 | 1047.2198 | | 0.3096E-03 | |
| 4 | 27 | 8 | 19 | 28 | 9 | 17 | | 1040.5374 | | 0.1114E-03 | 4 | 19 | 7 | 12 | 18 | 8 | 10 | 1047.2198 | | 0.3096E-03 | |
| 6 | 22 | 3 | 19 | 22 | 6 | 16 | | 1040.9030 | | 0.1918E-03 | 4 | 29 | 2 | 27 | 30 | 3 | 27 | 1047.2981 | | 0.8490E-03 | |
| 4 | 28 | 2 | 26 | 27 | 3 | 25 | | 1040.9937 | | 0.1383E-02 | 4 | 27 | 0 | 27 | 28 | 1 | 27 | 1047.3785 | | 0.7150E-03 | |
| 4 | 13 | 4 | 9 | 14 | 5 | 9 | | 1041.0096 | -0.0004 | 0.2148E-01 | 4 | 24 | 1 | 23 | 24 | 4 | 21 | 1047.4192 | | 0.1050E-03 | |
| 4 | 13 | 4 | 10 | 14 | 5 | 10 | | 1041.0848 | -0.0004 | 0.2193E-01 | 4 | 30 | 8 | 23 | 29 | 9 | 21 | 1047.4207 | | 0.5171E-04 | |
| 6 | 22 | 1 | 22 | 23 | 4 | 19 | | 1041.2574 | | 0.8240E-03 | 4 | 30 | 8 | 22 | 29 | 9 | 20 | 1047.4211 | | 0.5171E-04 | |
| 6 | 23 | 3 | 20 | 23 | 6 | 17 | | 1041.3287 | | 0.1992E-03 | 4 | 15 | 0 | 15 | 16 | 3 | 13 | 1047.8208 | | 0.6584E-03 | |
| 6 | 19 | 2 | 17 | 20 | 5 | 16 | | 1041.6321 | | 0.2629E-03 | 6 | 13 | 2 | 12 | 14 | 5 | 9 | 1047.8871 | | 0.9394E-03 | |
| 6 | 24 | 3 | 21 | 24 | 6 | 18 | | 1041.7850 | | 0.2031E-03 | 4 | 14 | 1 | 13 | 14 | 4 | 11 | 1048.0852 | | 0.5920E-04 | |
| 4 | 28 | 1 | 27 | 28 | 4 | 25 | | 1041.8489 | | 0.5129E-04 | 4 | 23 | 1 | 22 | 23 | 4 | 20 | 1048.2122 | | 0.1156E-03 | |
| 6 | 25 | 3 | 22 | 25 | 6 | 19 | | 1042.2594 | | 0.2023E-03 | 4 | 28 | 1 | 26 | 27 | 2 | 26 | 1048.3167 | | 0.3339E-03 | |
| 4 | 28 | 0 | 28 | 29 | 1 | 28 | | 1042.5319 | | 0.5134E-03 | 4 | 30 | 0 | 30 | 30 | 3 | 28 | 1048.3843 | | 0.6891E-04 | |
| 4 | 17 | 7 | 10 | 16 | 8 | 8 | | 1042.5763 | | 0.3600E-03 | 4 | 19 | 3 | 17 | 20 | 4 | 17 | 1048.4164 | -0.0004 | 0.3012E-02 | |
| 4 | 17 | 7 | 11 | 16 | 8 | 9 | | 1042.5763 | | 0.3500E-03 | 4 | 28 | 1 | 27 | 29 | 2 | 27 | 1048.4476 | | 0.2481E-03 | |
| 6 | 15 | 2 | 14 | 16 | 5 | 11 | | 1042.7177 | | 0.1197E-02 | 4 | 15 | 1 | 14 | 15 | 4 | 12 | 1048.5035 | | 0.7335E-04 | |
| 6 | 26 | 3 | 23 | 26 | 6 | 20 | | 1042.7258 | | 0.1958E-03 | 4 | 10 | 4 | 6 | 11 | 5 | 6 | 1048.7601 | 0.0000 | 0.3224E-01 | |
| 4 | 21 | 3 | 19 | 22 | 4 | 19 | | 1042.8041 | -0.0002 | 0.1887E-02 | 4 | 10 | 4 | 7 | 11 | 5 | 7 | 1048.7725 | -0.0003 | 0.3235E-01 | |
| 4 | 28 | 8 | 21 | 27 | 9 | 19 | | 1042.8322 | | 0.8761E-04 | 4 | 9 | 6 | 4 | 8 | 7 | 2 | 1048.7914 | | 0.7173E-03 | |
| 4 | 28 | 8 | 26 | 27 | 9 | 18 | | 1042.8324 | | 0.8781E-04 | 4 | 9 | 6 | 3 | 8 | 7 | 1 | 1048.7914 | | 0.7173E-03 | |
| 6 | 18 | 2 | 18 | 19 | 5 | 15 | | 1042.8540 | | 0.3142E-03 | 4 | 22 | 1 | 21 | 22 | 4 | 19 | 1048.7926 | | 0.1230E-03 | |
| 4 | 29 | 1 | 28 | 30 | 2 | 28 | | 1042.8940 | | 0.1702E-03 | 6 | 14 | 2 | 12 | 15 | 5 | 11 | 1048.8019 | | 0.4865E-03 | |
| 4 | 23 | 3 | 20 | 24 | 4 | 20 | | 1042.9297 | | 0.8380E-03 | 4 | 16 | 1 | 15 | 16 | 4 | 13 | 1048.8669 | | 0.8756E-04 | |
| 6 | 27 | 3 | 24 | 27 | 6 | 21 | | 1043.1576 | | 0.1825E-03 | 4 | 24 | 2 | 23 | 25 | 3 | 23 | 1048.9432 | 0.0015 | 0.2573E-02 | |
| 4 | 16 | 0 | 16 | 17 | 3 | 14 | | 1043.5172 | | 0.8140E-03 | 4 | 17 | 1 | 16 | 17 | 4 | 14 | 1049.1566 | | 0.1009E-03 | |
| 6 | 28 | 3 | 25 | 28 | 6 | 22 | | 1043.5302 | | 0.1830E-03 | 4 | 21 | 1 | 20 | 21 | 4 | 18 | 1049.1761 | | 0.1265E-03 | |
| 4 | 12 | 4 | 8 | 13 | 5 | 8 | | 1043.6146 | -0.0003 | 0.2498E-01 | 4 | 18 | 1 | 17 | 18 | 4 | 15 | 1049.3631 | | 0.1123E-03 | |
| 4 | 27 | 1 | 26 | 27 | 4 | 24 | | 1043.6212 | | 0.8441E-04 | 4 | 20 | 1 | 19 | 20 | 4 | 17 | 1049.3842 | | 0.1257E-03 | |
| 4 | 12 | 4 | 9 | 13 | 5 | 9 | | 1043.6589 | 0.0000 | 0.2527E-01 | 4 | 19 | 1 | 18 | 19 | 4 | 16 | 1049.4360 | | 0.1209E-03 | |
| 6 | 29 | 3 | 26 | 29 | 6 | 23 | | 1043.8267 | | 0.1390E-03 | 4 | 20 | 7 | 14 | 19 | 8 | 12 | 1049.5374 | | 0.2804E-03 | |
| 4 | 27 | 1 | 27 | 28 | 2 | 27 | | 1044.0002 | | 0.2421E-03 | 4 | 20 | 7 | 13 | 19 | 8 | 11 | 1049.5375 | | 0.2804E-03 | |
| 4 | 30 | 5 | 26 | 30 | 6 | 24 | | 1044.0389 | | 0.1133E-03 | 4 | 19 | 3 | 16 | 20 | 4 | 16 | 1049.5797 | 0.0006 | 0.2856E-02 | |
| 6 | 17 | 2 | 15 | 18 | 5 | 14 | | 1044.1783 | | 0.3868E-03 | 6 | 12 | 2 | 11 | 13 | 5 | 8 | 1050.4365 | | 0.7889E-03 | |
| 4 | 21 | 3 | 18 | 22 | 4 | 18 | | 1044.3892 | 0.0027 | 0.1508E-02 | 6 | 13 | 2 | 11 | 14 | 5 | 10 | 1050.5699 | | 0.4938E-03 | |
| 4 | 18 | 7 | 12 | 17 | 8 | 10 | | 1044.8994 | | 0.3337E-03 | 6 | 21 | 1 | 21 | 22 | 4 | 16 | 1050.6527 | | 0.3924E-03 | |
| 4 | 18 | 7 | 11 | 17 | 8 | 9 | | 1044.8994 | | 0.3337E-03 | 4 | 28 | 2 | 26 | 29 | 3 | 26 | 1050.9150 | | 0.9232E-03 | |
| 4 | 25 | 2 | 24 | 26 | 3 | 24 | | 1045.0280 | -0.0082R | 0.1900E-02 | 4 | 20 | 5 | 15 | 20 | 6 | 15 | 1051.0800 | | 0.2439E-02 | |
| 4 | 29 | 8 | 22 | 28 | 9 | 20 | | 1045.1268 | | 0.8783E-04 | 4 | 19 | 5 | 14 | 19 | 6 | 14 | 1051.0841 | -0.0002 | 0.2948E-02 | |
| 4 | 29 | 8 | 21 | 28 | 9 | 19 | | 1045.1270 | | 0.8783E-04 | 4 | 21 | 5 | 16 | 21 | 6 | 16 | 1051.0905 | | 0.1984E-02 | |
| 4 | 26 | 1 | 25 | 26 | 4 | 23 | | 1045.1354 | | 0.7834E-04 | 4 | 18 | 5 | 13 | 18 | 6 | 13 | 1051.1021 | 0.0010 | 0.3504E-02 | |
| 6 | 14 | 2 | 13 | 15 | 5 | 10 | | 1045.3149 | | 0.1078E-02 | 4 | 22 | 5 | 17 | 22 | 6 | 17 | 1051.1165 | 0.0008 | 0.1588E-02 | |
| 6 | 16 | 2 | 14 | 17 | 5 | 13 | | 1045.6058 | | 0.4168E-03 | 4 | 17 | 5 | 12 | 17 | 6 | 12 | 1051.1320 | 0.0016 | 0.4090E-02 | |
| 4 | 20 | 3 | 18 | 21 | 4 | 18 | | 1045.8348 | -0.0005 | 0.2400E-02 | 4 | 18 | 5 | 14 | 18 | 6 | 12 | 1051.1367 | -0.0033 | 0.3484E-02 | |
| 4 | 11 | 4 | 7 | 12 | 5 | 7 | | 1046.1974 | -0.0002 | 0.2857E-01 | 4 | 19 | 5 | 15 | 19 | 6 | 13 | 1051.1444 | 0.0013 | 0.2919E-02 | |
| 4 | 11 | 4 | 8 | 12 | 5 | 8 | | 1046.2218 | -0.0002 | 0.2877E-01 | 4 | 10 | 6 | 4 | 9 | 7 | 2 | 1051.1497 | -0.0039 | 0.1172E-02 | |
| 4 | 25 | 1 | 24 | 25 | 4 | 22 | | 1046.3979 | | 0.9222E-04 | 4 | 10 | 6 | 5 | 9 | 7 | 3 | 1051.1497 | -0.0039 | 0.1172E-02 | |
| 4 | 22 | 3 | 19 | 23 | 4 | 19 | | 1046.3988 | | 0.6533E-03 | 4 | 17 | 5 | 13 | 17 | 6 | 11 | 1051.1512 | 0.0017 | 0.4077E-02 | |
| 4 | 8 | 6 | 3 | 7 | 7 | 1 | | 1046.4279 | | 0.2928E-03 | 4 | 18 | 3 | 18 | 19 | 4 | 16 | 1051.1545 | -0.0016 | 0.3729E-02 | |
| 4 | 8 | 6 | 2 | 7 | 7 | 0 | | 1046.4279 | | 0.2928E-03 | 4 | 23 | 5 | 18 | 23 | 6 | 18 | 1051.1584 | | 0.1252E-02 | |
| 4 | 20 | 3 | 17 | 21 | 4 | 17 | | 1047.0614 | 0.0015 | 0.2169E-02 | 4 | 16 | 5 | 11 | 16 | 6 | 11 | 1051.1721 | 0.0002 | 0.4686E-02 | |

ORIGINAL PAGE IS
OF POOR QUALITY

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|-----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 4 | 20 | 5 | 16 | 20 | 6 | 14 | | 1051.1814 | | 0.2397E-02 | 4 | 8 | 4 | 4 | 9 | 5 | 4 | 1053.8319 | 0.0013 | 0.3942E-01 | |
| 4 | 18 | 5 | 12 | 16 | 6 | 10 | | 1051.1826 | 0.0000 | 0.4678E-02 | 4 | 8 | 4 | 5 | 9 | 5 | 5 | 1053.8342 | -0.0010 | 0.3945E-01 | |
| 4 | 24 | 5 | 19 | 24 | 6 | 19 | | 1051.2158 | | 0.9719E-03 | 4 | 17 | 3 | 15 | 18 | 4 | 15 | 1053.8547 | -0.0004 | 0.4554E-02 | |
| 4 | 15 | 5 | 10 | 15 | 6 | 10 | | 1051.2208 | 0.0012 | 0.5264E-02 | 4 | 22 | 7 | 18 | 21 | 8 | 14 | 1054.1878 | | 0.2155E-03 | |
| 4 | 15 | 5 | 11 | 15 | 6 | 9 | | 1051.2263 | -0.00042R | 0.5259E-02 | 4 | 22 | 7 | 15 | 21 | 8 | 13 | 1054.1880 | | 0.2155E-03 | |
| 4 | 21 | 5 | 17 | 21 | 6 | 15 | | 1051.2572 | 0.0007 | 0.1928E-02 | 4 | 27 | 2 | 25 | 28 | 3 | 25 | 1054.3091 | -0.0009 | 0.1291E-02 | |
| 4 | 14 | 5 | 9 | 14 | 6 | 9 | | 1051.2782 | 0.0017 | 0.5791E-02 | 4 | 28 | 5 | 24 | 28 | 6 | 22 | 1054.4009 | | 0.1929E-03 | |
| 4 | 14 | 5 | 10 | 14 | 6 | 8 | | 1051.2789 | -0.0010 | 0.5788E-02 | 6 | 11 | 2 | 9 | 12 | 5 | 8 | 1054.4286 | | 0.4331E-03 | |
| 4 | 25 | 5 | 20 | 25 | 6 | 20 | | 1051.2878 | | 0.7438E-03 | 4 | 17 | 3 | 14 | 18 | 4 | 14 | 1054.5276 | 0.0002 | 0.4470E-02 | |
| 4 | 9 | 4 | 5 | 10 | 5 | 5 | | 1051.3043 | 0.0046 | 0.3588E-01 | 4 | 13 | 0 | 13 | 14 | 3 | 11 | 1055.1412 | | 0.6480E-03 | |
| 4 | 9 | 4 | 6 | 10 | 5 | 6 | | 1051.3101 | -0.0011 | 0.3594E-01 | 6 | 20 | 1 | 20 | 21 | 4 | 17 | 1055.2375 | | 0.2452E-03 | |
| 4 | 13 | 5 | 8 | 13 | 6 | 8 | | 1051.3363 | 0.0010 | 0.6227E-02 | 4 | 28 | 0 | 28 | 28 | 3 | 26 | 1055.3969 | | 0.1372E-03 | |
| 4 | 13 | 5 | 9 | 13 | 6 | 7 | | 1051.3376 | -0.0003 | 0.8225E-02 | 6 | 10 | 2 | 9 | 11 | 5 | 6 | 1055.4767 | | 0.4881E-03 | |
| 4 | 28 | 5 | 21 | 28 | 6 | 21 | | 1051.3729 | | 0.5815E-03 | 4 | 29 | 5 | 25 | 29 | 6 | 23 | 1055.5032 | | 0.1220E-03 | |
| 4 | 22 | 5 | 18 | 22 | 6 | 16 | | 1051.3842 | 0.0015 | 0.1517E-02 | 4 | 12 | 6 | 7 | 11 | 7 | 5 | 1055.8514 | 0.0005 | 0.1943E-02 | |
| 4 | 12 | 5 | 7 | 12 | 6 | 7 | | 1051.3994 | 0.0005 | 0.8525E-02 | 4 | 12 | 6 | 6 | 11 | 7 | 4 | 1055.8514 | 0.0005 | 0.1943E-02 | |
| 4 | 12 | 5 | 8 | 12 | 6 | 6 | | 1051.4000 | -0.0001 | 0.8525E-02 | 4 | 7 | 4 | 3 | 8 | 5 | 3 | 1056.3444 | 0.0007 | 0.4282E-01 | |
| 4 | 11 | 5 | 8 | 11 | 6 | 6 | | 1051.4639 | 0.0004 | 0.8838E-02 | 4 | 7 | 4 | 4 | 8 | 5 | 4 | 1056.3451 | -0.0001 | 0.4283E-01 | |
| 4 | 11 | 5 | 7 | 11 | 6 | 5 | | 1051.4641 | 0.0002 | 0.8838E-02 | 4 | 22 | 2 | 21 | 23 | 3 | 21 | 1056.4315 | 0.0008 | 0.4518E-02 | |
| 4 | 27 | 5 | 22 | 27 | 6 | 22 | | 1051.4688 | | 0.4183E-03 | 4 | 23 | 7 | 17 | 22 | 8 | 15 | 1056.4811 | | 0.1834E-03 | |
| 4 | 14 | 0 | 14 | 15 | 3 | 12 | | 1051.4899 | | 0.8690E-03 | 4 | 23 | 7 | 16 | 22 | 8 | 14 | 1056.4816 | | 0.1834E-03 | |
| 4 | 10 | 5 | 5 | 10 | 6 | 5 | | 1051.5282 | 0.0001 | 0.6512E-02 | 6 | 10 | 2 | 8 | 11 | 5 | 7 | 1056.5050 | | 0.3680E-03 | |
| 4 | 10 | 5 | 6 | 10 | 6 | 4 | | 1051.5283 | 0.0000 | 0.6512E-02 | 4 | 16 | 3 | 14 | 17 | 4 | 14 | 1056.5215 | -0.0001 | 0.5487E-02 | |
| 4 | 28 | 5 | 23 | 28 | 6 | 23 | | 1051.5732 | | 0.3077E-03 | 6 | 30 | 3 | 27 | 30 | 6 | 24 | 1056.8074 | | 0.7545E-04 | |
| 4 | 23 | 5 | 19 | 23 | 6 | 17 | | 1051.5788 | | 0.1184E-02 | 4 | 24 | 1 | 24 | 25 | 2 | 24 | 1056.8483 | | 0.6128E-03 | |
| 4 | 9 | 5 | 5 | 9 | 6 | 3 | | 1051.5909 | 0.0000 | 0.6089E-02 | 4 | 16 | 3 | 13 | 17 | 4 | 13 | 1057.0085 | 0.0001 | 0.5424E-02 | |
| 4 | 9 | 5 | 4 | 9 | 6 | 4 | | 1051.5909 | 0.0001 | 0.6089E-02 | 4 | 25 | 0 | 25 | 26 | 1 | 25 | 1057.1709 | -0.0004 | 0.1341E-02 | |
| 4 | 8 | 5 | 4 | 8 | 6 | 2 | | 1051.8510 | 0.0001 | 0.5310E-02 | 4 | 26 | 2 | 24 | 27 | 3 | 24 | 1057.4910 | -0.0008 | 0.1775E-02 | |
| 4 | 8 | 5 | 3 | 8 | 6 | 3 | | 1051.8510 | 0.0001 | 0.5310E-02 | 6 | 9 | 2 | 8 | 10 | 5 | 5 | 1057.9725 | | 0.3508E-03 | |
| 4 | 29 | 5 | 24 | 29 | 6 | 24 | | 1051.8836 | | 0.2237E-03 | 4 | 13 | 6 | 7 | 12 | 7 | 5 | 1058.1960 | 0.0003 | 0.2201E-02 | |
| 4 | 7 | 5 | 2 | 7 | 6 | 2 | | 1051.7070 | -0.0001 | 0.4103E-02 | 4 | 13 | 6 | 8 | 12 | 7 | 6 | 1058.1960 | 0.0003 | 0.2201E-02 | |
| 4 | 7 | 5 | 3 | 7 | 6 | 1 | | 1051.7070 | -0.0001 | 0.4103E-02 | 4 | 12 | 0 | 12 | 13 | 3 | 10 | 1058.5917 | | 0.5949E-03 | |
| 4 | 8 | 5 | 1 | 8 | 6 | 1 | | 1051.7582 | 0.0002 | 0.2379E-02 | 6 | 9 | 2 | 7 | 10 | 5 | 6 | 1058.6661 | | 0.2891E-03 | |
| 4 | 8 | 5 | 2 | 8 | 6 | 0 | | 1051.7582 | 0.0002 | 0.2379E-02 | 4 | 27 | 0 | 27 | 27 | 3 | 25 | 1058.7297 | | 0.1891E-03 | |
| 4 | 30 | 5 | 25 | 30 | 6 | 25 | | 1051.7971 | | 0.1607E-03 | 4 | 24 | 7 | 18 | 23 | 8 | 16 | 1058.7941 | | 0.1532E-03 | |
| 4 | 21 | 7 | 15 | 20 | 8 | 13 | | 1051.8531 | | 0.2483E-03 | 4 | 24 | 7 | 17 | 23 | 8 | 15 | 1058.7950 | | 0.1532E-03 | |
| 4 | 21 | 7 | 14 | 20 | 8 | 12 | | 1051.8534 | | 0.2483E-03 | 4 | 19 | 1 | 19 | 20 | 4 | 16 | 1058.8429 | 0.0001 | 0.4806E-01 | |
| 4 | 24 | 5 | 20 | 24 | 6 | 18 | | 1051.8610 | | 0.8868E-03 | 4 | 8 | 4 | 2 | 7 | 5 | 2 | 1058.8431 | -0.0001 | 0.4806E-01 | |
| 4 | 29 | 0 | 29 | 29 | 3 | 27 | | 1051.9449 | | 0.9799E-04 | 4 | 26 | 1 | 25 | 27 | 2 | 25 | 1059.0295 | | 0.5072E-03 | |
| 4 | 18 | 3 | 15 | 19 | 4 | 15 | | 1052.0555 | 0.0002 | 0.3616E-02 | 4 | 15 | 3 | 13 | 16 | 4 | 13 | 1059.1595 | -0.0002 | 0.6524E-02 | |
| 4 | 25 | 5 | 21 | 25 | 6 | 19 | | 1052.2570 | 0.0017 | 0.8284E-03 | 4 | 15 | 3 | 12 | 16 | 4 | 12 | 1059.5018 | 0.0000 | 0.8477E-02 | |
| 4 | 26 | 0 | 26 | 27 | 1 | 26 | | 1052.2595 | -0.0009 | 0.9847E-03 | 6 | 19 | 1 | 19 | 20 | 4 | 16 | 1059.8514 | | 0.1702E-03 | |
| 6 | 12 | 2 | 10 | 13 | 5 | 9 | | 1052.4475 | | 0.4763E-03 | 4 | 21 | 2 | 20 | 22 | 3 | 20 | 1060.0121 | 0.0001 | 0.5858E-02 | |
| 4 | 25 | 1 | 25 | 28 | 2 | 25 | | 1052.6008 | | 0.4550E-03 | 6 | 8 | 2 | 7 | 9 | 5 | 4 | 1060.4551 | | 0.2353E-03 | |
| 4 | 23 | 2 | 22 | 24 | 3 | 22 | | 1052.7432 | 0.0004 | 0.3434E-02 | 4 | 25 | 2 | 23 | 26 | 3 | 23 | 1060.4749 | -0.0011 | 0.2400E-02 | |
| 4 | 28 | 5 | 22 | 28 | 6 | 20 | | 1052.7946 | | 0.4392E-03 | 4 | 14 | 6 | 8 | 13 | 7 | 6 | 1060.5374 | 0.0002 | 0.2359E-02 | |
| 6 | 11 | 2 | 10 | 12 | 5 | 7 | | 1052.9855 | | 0.8348E-03 | 4 | 14 | 6 | 9 | 13 | 7 | 7 | 1060.5374 | 0.0002 | 0.2359E-02 | |
| 4 | 27 | 5 | 23 | 27 | 6 | 21 | | 1053.5018 | | 0.2981E-03 | 6 | 8 | 2 | 8 | 9 | 5 | 5 | 1060.9005 | | 0.2071E-03 | |
| 4 | 11 | 8 | 8 | 10 | 7 | 4 | | 1053.5028 | -0.0004 | 0.1594E-02 | 4 | 23 | 1 | 23 | 24 | 2 | 23 | 1061.0548 | | 0.8155E-03 | |
| 4 | 11 | 6 | 5 | 10 | 7 | 3 | | 1053.5028 | -0.0004 | 0.1594E-02 | 4 | 25 | 7 | 19 | 24 | 8 | 17 | 1061.1071 | | 0.1258E-03 | |
| 4 | 27 | 1 | 26 | 28 | 2 | 28 | | 1053.8301 | | 0.3572E-03 | 4 | 25 | 7 | 18 | 24 | 8 | 18 | 1061.1086 | | 0.1258E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 4 | 5 | 4 | 1 | - | 6 | 5 | 1 | 1061.3289 | 0.0001 | 0.4918E-01 | 4 | 21 | 1 | 21 | - | 22 | 2 | 21 | 1069.3257 | -0.0004 | 0.1393E-02 |
| 4 | 5 | 4 | 2 | - | 6 | 5 | 2 | 1061.3290 | 0.0000 | 0.4918E-01 | 4 | 11 | 3 | 9 | - | 12 | 4 | 9 | 1069.4943 | -0.0003 | 0.1139E-01 |
| 4 | 14 | 3 | 12 | - | 15 | 4 | 12 | 1061.7727 | -0.0001 | 0.7652E-02 | 4 | 11 | 3 | 8 | - | 12 | 4 | 8 | 1069.5532 | 0.0001 | 0.1138E-01 |
| 4 | 11 | 0 | 11 | - | 12 | 3 | 9 | 1061.8599 | | 0.5157E-03 | 4 | 18 | 6 | 12 | - | 17 | 7 | 10 | 1069.8823 | 0.0005 | 0.2160E-02 |
| 4 | 28 | 0 | 28 | - | 26 | 3 | 24 | 1061.9388 | | 0.2562E-03 | 4 | 18 | 6 | 13 | - | 17 | 7 | 11 | 1069.8824 | 0.0003 | 0.2160E-02 |
| 4 | 14 | 3 | 11 | - | 15 | 4 | 11 | 1062.0055 | 0.0001 | 0.7617E-02 | 4 | 26 | 2 | 24 | - | 25 | 5 | 21 | 1069.9248 | | 0.1708E-02 |
| 4 | 24 | 0 | 24 | - | 25 | 1 | 24 | 1062.1064 | -0.0001 | 0.1808E-02 | 4 | 18 | 2 | 17 | - | 19 | 3 | 17 | 1070.1479 | -0.0001 | 0.1171E-01 |
| 4 | 15 | 6 | 9 | - | 14 | 7 | 7 | 1062.8759 | 0.0003 | 0.2423E-02 | 4 | 30 | 4 | 27 | - | 30 | 5 | 25 | 1070.6132 | | 0.7562E-03 |
| 4 | 15 | 6 | 10 | - | 14 | 7 | 8 | 1062.8759 | 0.0003 | 0.2423E-02 | 4 | 24 | 2 | 23 | - | 24 | 5 | 20 | 1070.7021 | | 0.2544E-02 |
| 6 | 7 | 2 | 8 | - | 8 | 5 | 3 | 1062.9266 | | 0.1434E-03 | 4 | 23 | 0 | 23 | - | 23 | 3 | 21 | 1070.7455 | | 0.5684E-03 |
| 6 | 7 | 2 | 5 | - | 8 | 5 | 4 | 1063.1956 | | 0.1326E-03 | 4 | 8 | 0 | 8 | - | 9 | 3 | 6 | 1070.7697 | | 0.2272E-03 |
| 4 | 24 | 2 | 22 | - | 25 | 3 | 22 | 1063.2769 | -0.0011 | 0.3191E-02 | 4 | 21 | 2 | 19 | - | 22 | 3 | 19 | 1070.7738 | -0.0005 | 0.6820E-02 |
| 4 | 26 | 7 | 26 | - | 25 | 8 | 18 | 1063.4205 | | 0.1015E-03 | 4 | 8 | 5 | 3 | - | 7 | 6 | 1 | 1071.0668 | | 0.4805E-03 |
| 4 | 26 | 7 | 19 | - | 25 | 8 | 17 | 1063.4233 | | 0.1018E-03 | 4 | 29 | 4 | 26 | - | 29 | 5 | 24 | 1071.1108 | | 0.1056E-02 |
| 4 | 26 | 2 | 19 | - | 21 | 3 | 19 | 1063.4889 | 0.0002 | 0.7487E-02 | 4 | 23 | 4 | 19 | - | 23 | 5 | 19 | 1071.3835 | 0.0023 | 0.3651E-02 |
| 4 | 4 | 4 | 1 | - | 5 | 5 | 1 | 1063.8033 | -0.0002 | 0.5239E-01 | 4 | 28 | 4 | 25 | - | 28 | 5 | 23 | 1071.5518 | | 0.1453E-02 |
| 4 | 4 | 4 | 0 | - | 5 | 5 | 0 | 1063.8033 | -0.0002 | 0.5239E-01 | 4 | 27 | 4 | 24 | - | 27 | 5 | 22 | 1071.9446 | -0.0010 | 0.1970E-02 |
| 4 | 25 | 1 | 24 | - | 26 | 2 | 24 | 1064.0355 | | 0.7105E-03 | 4 | 22 | 4 | 18 | - | 22 | 5 | 18 | 1071.9813 | 0.0012 | 0.5063E-02 |
| 6 | 30 | 2 | 29 | - | 30 | 5 | 26 | 1064.1953 | | 0.1285E-03 | 4 | 22 | 0 | 22 | - | 23 | 1 | 22 | 1072.0114 | 0.0003 | 0.3182E-02 |
| 4 | 13 | 3 | 11 | - | 14 | 4 | 11 | 1064.3643 | -0.0001 | 0.8854E-02 | 4 | 10 | 3 | 8 | - | 11 | 4 | 6 | 1072.0369 | 0.0001 | 0.1266E-01 |
| 6 | 18 | 1 | 18 | - | 19 | 4 | 15 | 1064.3844 | | 0.1272E-03 | 4 | 10 | 3 | 7 | - | 11 | 4 | 7 | 1072.0709 | -0.0002 | 0.1265E-01 |
| 4 | 13 | 3 | 10 | - | 14 | 4 | 10 | 1064.5178 | -0.0001 | 0.8830E-02 | 4 | 19 | 6 | 13 | - | 18 | 7 | 11 | 1072.2174 | 0.0012 | 0.1973E-02 |
| 4 | 10 | 0 | 10 | - | 11 | 3 | 8 | 1064.9655 | | 0.4204E-03 | 4 | 19 | 8 | 14 | - | 18 | 7 | 12 | 1072.2177 | 0.0009 | 0.1973E-02 |
| 4 | 25 | 0 | 25 | - | 25 | 3 | 23 | 1085.0159 | | 0.3408E-03 | 4 | 26 | 4 | 23 | - | 26 | 5 | 21 | 1072.2965 | -0.0018 | 0.2633E-02 |
| 4 | 16 | 6 | 11 | - | 15 | 7 | 9 | 1065.2124 | 0.0004 | 0.2401E-02 | 4 | 21 | 4 | 17 | - | 21 | 5 | 17 | 1072.5087 | 0.0007 | 0.6802E-02 |
| 4 | 16 | 6 | 10 | - | 15 | 7 | 8 | 1065.2124 | 0.0004 | 0.2401E-02 | 4 | 25 | 4 | 22 | - | 25 | 5 | 20 | 1072.6141 | -0.0010 | 0.3469E-02 |
| 4 | 22 | 1 | 22 | - | 23 | 2 | 22 | 1065.2152 | | 0.1072E-02 | 4 | 24 | 4 | 21 | - | 24 | 5 | 19 | 1072.9030 | -0.0010 | 0.4505E-02 |
| 6 | 8 | 2 | 5 | - | 7 | 5 | 2 | 1065.3888 | | 0.7850E-04 | 4 | 26 | 4 | 18 | - | 26 | 5 | 16 | 1072.9696 | 0.0001 | 0.8872E-02 |
| 6 | 6 | 2 | 4 | - | 7 | 5 | 3 | 1065.5388 | | 0.7318E-04 | 4 | 26 | 2 | 18 | - | 21 | 3 | 18 | 1073.0392 | -0.0002 | 0.8526E-02 |
| 6 | 29 | 2 | 28 | - | 29 | 5 | 25 | 1065.6182 | | 0.2340E-03 | 6 | 18 | 1 | 16 | - | 17 | 4 | 13 | 1073.0779 | | 0.7904E-04 |
| 4 | 27 | 7 | 21 | - | 26 | 8 | 19 | 1065.7346 | | 0.8062E-04 | 4 | 23 | 4 | 20 | - | 23 | 5 | 18 | 1073.1678 | -0.0012 | 0.5766E-02 |
| 4 | 27 | 7 | 20 | - | 26 | 8 | 18 | 1065.7395 | | 0.8071E-04 | 4 | 17 | 2 | 18 | - | 18 | 3 | 18 | 1073.3391 | -0.0001 | 0.1432E-01 |
| 4 | 23 | 2 | 21 | - | 24 | 3 | 21 | 1065.9139 | -0.0003 | 0.4175E-02 | 4 | 19 | 4 | 15 | - | 19 | 5 | 15 | 1073.3785 | 0.0006 | 0.1126E-01 |
| 4 | 19 | 2 | 18 | - | 20 | 3 | 18 | 1068.8860 | 0.0002 | 0.9430E-02 | 4 | 20 | 1 | 20 | - | 21 | 2 | 20 | 1073.3816 | | 0.1786E-02 |
| 6 | 28 | 2 | 27 | - | 28 | 5 | 24 | 1068.8951 | | 0.4088E-03 | 4 | 22 | 0 | 22 | - | 22 | 3 | 20 | 1073.3843 | | 0.7102E-03 |
| 4 | 12 | 3 | 10 | - | 13 | 4 | 10 | 1068.9374 | 0.0001 | 0.1011E-01 | 4 | 22 | 4 | 19 | - | 22 | 5 | 17 | 1073.4127 | -0.0010 | 0.7271E-02 |
| 4 | 12 | 3 | 9 | - | 13 | 4 | 9 | 1067.0345 | 0.0000 | 0.1009E-01 | 4 | 9 | 5 | 4 | - | 8 | 6 | 2 | 1073.4340 | | 0.7849E-03 |
| 4 | 23 | 0 | 23 | - | 24 | 1 | 23 | 1067.0573 | 0.0004 | 0.2411E-02 | 4 | 23 | 1 | 22 | - | 24 | 2 | 22 | 1073.4384 | | 0.1334E-02 |
| 4 | 17 | 6 | 11 | - | 18 | 7 | 9 | 1067.5476 | 0.0001 | 0.2308E-02 | 4 | 7 | 0 | 7 | - | 8 | 3 | 5 | 1073.5087 | | 0.1480E-03 |
| 4 | 17 | 6 | 12 | - | 18 | 7 | 10 | 1067.5477 | 0.0000 | 0.2308E-02 | 4 | 21 | 4 | 18 | - | 21 | 5 | 16 | 1073.8410 | -0.0009 | 0.9036E-02 |
| 4 | 9 | 0 | 9 | - | 10 | 3 | 7 | 1067.9285 | | 0.3207E-03 | 4 | 18 | 4 | 14 | - | 18 | 5 | 14 | 1073.7405 | -0.0001 | 0.1393E-01 |
| 4 | 24 | 0 | 24 | - | 24 | 3 | 22 | 1068.9539 | | 0.4447E-03 | 4 | 19 | 4 | 16 | - | 19 | 5 | 14 | 1073.8555 | -0.0004 | 0.1106E-01 |
| 6 | 27 | 2 | 26 | - | 27 | 5 | 23 | 1068.0328 | | 0.6855E-03 | 4 | 17 | 4 | 13 | - | 17 | 5 | 13 | 1074.0583 | 0.0015 | 0.1333E-01 |
| 4 | 28 | 7 | 22 | - | 27 | 8 | 20 | 1068.0490 | | 0.6296E-04 | 4 | 19 | 4 | 16 | - | 19 | 5 | 14 | 1074.0615 | -0.0018 | 0.1682E-01 |
| 4 | 28 | 7 | 21 | - | 27 | 8 | 19 | 1068.0579 | | 0.6311E-04 | 4 | 18 | 4 | 14 | - | 18 | 5 | 14 | 1074.0815 | -0.0005 | 0.1583E-01 |
| 4 | 22 | 2 | 20 | - | 23 | 3 | 20 | 1068.4060 | -0.0005 | 0.5377E-02 | 4 | 17 | 4 | 13 | - | 17 | 5 | 13 | 1074.2513 | -0.0006 | 0.1984E-01 |
| 4 | 7 | 5 | 2 | - | 8 | 6 | 0 | 1068.8958 | | 0.1969E-03 | 4 | 18 | 4 | 15 | - | 18 | 5 | 13 | 1074.4361 | -0.0002 | 0.1849E-01 |
| 4 | 7 | 5 | 3 | - | 8 | 6 | 1 | 1068.8958 | | 0.1969E-03 | 4 | 17 | 4 | 14 | - | 17 | 5 | 12 | 1074.4357 | -0.0004 | 0.1763E-02 |
| 6 | 17 | 1 | 17 | - | 18 | 4 | 14 | 1068.7977 | | 0.9926E-04 | 4 | 20 | 6 | 14 | - | 19 | 7 | 12 | 1074.5538 | 0.0009 | 0.1763E-02 |
| 4 | 24 | 1 | 23 | - | 25 | 2 | 23 | 1068.8402 | | 0.9809E-03 | 4 | 20 | 6 | 15 | - | 19 | 7 | 13 | 1074.5544 | 0.0003 | 0.1763E-02 |
| 6 | 28 | 2 | 25 | - | 28 | 5 | 22 | 1069.0389 | | 0.1104E-02 | 4 | 20 | 6 | 15 | - | 19 | 7 | 13 | 1074.5544 | | 0.1763E-02 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|----|-----------|------------|------------|
| 4 | 9 | 3 | 7 | 10 | 4 | 7 | | 1074.5668 | -0.0001 | 0.1388E-01 | 4 | 22 | 6 | 18 | 21 | 7 | 14 | | 1079.2344 | 0.0024 | 0.1325E-02 |
| 4 | 9 | 3 | 6 | 10 | 4 | 6 | | 1074.5852 | -0.0003 | 0.1388E-01 | 4 | 22 | 6 | 17 | 21 | 7 | 15 | | 1079.2363 | 0.0005 | 0.1325E-02 |
| 4 | 15 | 4 | 11 | 15 | 5 | 11 | | 1074.5983 | -0.0003 | 0.2287E-01 | 8 | 23 | 2 | 22 | 23 | 6 | 19 | | 1079.3254 | 0.2353E-02 | |
| 4 | 18 | 4 | 13 | 16 | 5 | 11 | | 1074.6121 | -0.0003 | 0.2124E-01 | 4 | 17 | 2 | 15 | 18 | 3 | 15 | | 1079.4531 | -0.0002 | 0.1536E-01 |
| 4 | 15 | 4 | 12 | 15 | 5 | 10 | | 1074.7808 | -0.0002 | 0.2399E-01 | 4 | 15 | 2 | 14 | 18 | 3 | 14 | | 1079.4694 | -0.0003 | 0.2050E-01 |
| 4 | 14 | 4 | 10 | 14 | 5 | 10 | | 1074.8215 | -0.0005 | 0.2576E-01 | 4 | 7 | 3 | 5 | 8 | 4 | 5 | | 1079.5923 | 0.0018 | 0.1809E-01 |
| 4 | 14 | 4 | 11 | 14 | 5 | 9 | | 1074.9415 | -0.0004 | 0.2680E-01 | 4 | 7 | 3 | 4 | 8 | 4 | 4 | | 1079.5988 | -0.0024 | 0.1808E-01 |
| 4 | 13 | 4 | 9 | 13 | 5 | 9 | | 1075.0188 | -0.0001 | 0.2833E-01 | 8 | 22 | 2 | 21 | 22 | 5 | 18 | | 1079.6808 | -0.0008 | 0.2502E-02 |
| 4 | 13 | 4 | 10 | 13 | 5 | 8 | | 1075.0935 | -0.0003 | 0.2892E-01 | 8 | 21 | 2 | 20 | 21 | 5 | 17 | | 1080.0261 | 0.0003 | 0.2591E-02 |
| 4 | 12 | 4 | 8 | 12 | 5 | 8 | | 1075.1918 | -0.0001 | 0.3039E-01 | 4 | 19 | 0 | 19 | 19 | 3 | 17 | | 1080.3237 | | 0.1187E-02 |
| 4 | 19 | 2 | 17 | 20 | 3 | 17 | | 1075.2257 | -0.0004 | 0.1051E-01 | 8 | 20 | 2 | 19 | 20 | 5 | 18 | | 1080.3534 | | 0.2613E-02 |
| 4 | 12 | 4 | 9 | 12 | 5 | 7 | | 1075.2360 | -0.0002 | 0.3077E-01 | 4 | 27 | 1 | 27 | 27 | 2 | 25 | | 1080.4834 | | 0.9812E-04 |
| 4 | 11 | 4 | 7 | 11 | 5 | 7 | | 1075.3434 | 0.0000 | 0.3171E-01 | 4 | 12 | 5 | 7 | 11 | 6 | 5 | | 1080.5249 | | 0.1486E-02 |
| 4 | 11 | 4 | 8 | 11 | 5 | 6 | | 1075.3678 | -0.0001 | 0.3194E-01 | 4 | 12 | 5 | 8 | 11 | 6 | 6 | | 1080.5254 | | 0.1486E-02 |
| 4 | 10 | 4 | 6 | 10 | 5 | 6 | | 1075.4753 | 0.0000 | 0.3208E-01 | 8 | 19 | 2 | 18 | 19 | 5 | 15 | | 1080.6571 | -0.0005 | 0.2570E-02 |
| 4 | 10 | 4 | 7 | 10 | 5 | 5 | | 1075.4878 | -0.0003 | 0.3220E-01 | 8 | 18 | 2 | 17 | 18 | 5 | 14 | | 1080.9338 | 0.0004 | 0.2461E-02 |
| 4 | 28 | 1 | 28 | 28 | 2 | 26 | | 1075.5123 | | 0.6812E-04 | 8 | 17 | 2 | 16 | 17 | 5 | 13 | | 1081.1818 | | 0.2293E-02 |
| 4 | 9 | 4 | 5 | 9 | 5 | 5 | | 1075.5898 | 0.0013 | 0.3127E-01 | 8 | 14 | 1 | 14 | 15 | 4 | 11 | | 1081.2292 | | 0.5041E-04 |
| 4 | 9 | 4 | 6 | 9 | 5 | 4 | | 1075.5953 | -0.0014 | 0.3132E-01 | 4 | 18 | 1 | 18 | 19 | 2 | 18 | | 1081.3127 | -0.0004 | 0.2826E-02 |
| 4 | 8 | 4 | 4 | 8 | 5 | 4 | | 1075.6875 | 0.0014 | 0.2905E-01 | 8 | 16 | 2 | 15 | 16 | 5 | 12 | | 1081.4008 | | 0.2075E-02 |
| 4 | 8 | 4 | 5 | 8 | 5 | 3 | | 1075.6898 | -0.0009 | 0.2907E-01 | 4 | 16 | 2 | 14 | 17 | 3 | 14 | | 1081.5375 | -0.0005 | 0.1823E-01 |
| 4 | 7 | 4 | 3 | 7 | 5 | 3 | | 1075.7705 | 0.0003 | 0.2517E-01 | 4 | 23 | 6 | 17 | 22 | 7 | 15 | | 1081.5807 | | 0.1117E-02 |
| 4 | 7 | 4 | 4 | 7 | 5 | 2 | | 1075.7712 | -0.0005 | 0.2518E-01 | 4 | 23 | 6 | 18 | 22 | 7 | 16 | | 1081.5848 | | 0.1117E-02 |
| 4 | 10 | 5 | 5 | 9 | 6 | 3 | | 1075.7988 | 0.0003 | 0.1069E-02 | 8 | 15 | 2 | 14 | 15 | 5 | 11 | | 1081.5918 | | 0.1818E-02 |
| 4 | 10 | 5 | 6 | 9 | 6 | 4 | | 1075.7987 | 0.0002 | 0.1069E-02 | 8 | 14 | 2 | 13 | 14 | 5 | 10 | | 1081.7561 | | 0.1537E-02 |
| 4 | 6 | 4 | 2 | 8 | 5 | 2 | | 1075.8401 | 0.0001 | 0.1936E-01 | 4 | 20 | 0 | 26 | 21 | 1 | 26 | | 1081.8712 | -0.0001 | 0.5385E-02 |
| 4 | 8 | 4 | 3 | 8 | 5 | 1 | | 1075.8403 | -0.0001 | 0.1936E-01 | 8 | 13 | 2 | 12 | 13 | 5 | 9 | | 1081.8960 | | 0.1247E-02 |
| 4 | 21 | 0 | 21 | 21 | 3 | 19 | | 1075.8840 | | 0.8881E-03 | 4 | 21 | 1 | 26 | 22 | 2 | 26 | | 1082.0093 | 0.0007 | 0.2352E-02 |
| 4 | 5 | 4 | 1 | 5 | 5 | 1 | | 1075.8975 | 0.0001 | 0.1121E-01 | 8 | 12 | 2 | 11 | 12 | 5 | 8 | | 1082.0135 | | 0.9663E-03 |
| 4 | 5 | 4 | 2 | 5 | 5 | 0 | | 1075.8975 | 0.0000 | 0.1121E-01 | 4 | 6 | 3 | 4 | 7 | 4 | 4 | | 1082.0894 | 0.0008 | 0.1701E-01 |
| 4 | 6 | 0 | 8 | 7 | 3 | 4 | | 1078.1847 | | 0.8726E-04 | 4 | 6 | 3 | 3 | 7 | 4 | 3 | | 1082.0909 | -0.0009 | 0.1701E-01 |
| 4 | 16 | 2 | 15 | 17 | 3 | 15 | | 1078.4446 | -0.0002 | 0.1726E-01 | 8 | 11 | 2 | 10 | 11 | 5 | 7 | | 1082.1115 | | 0.7086E-03 |
| 4 | 21 | 8 | 15 | 20 | 7 | 13 | | 1078.8925 | | 0.1544E-02 | 8 | 10 | 2 | 9 | 10 | 5 | 6 | | 1082.1921 | | 0.4863E-03 |
| 4 | 21 | 8 | 16 | 20 | 7 | 14 | | 1078.8938 | | 0.1543E-02 | 8 | 9 | 2 | 8 | 9 | 5 | 5 | | 1082.2578 | | 0.3072E-03 |
| 4 | 21 | 0 | 21 | 22 | 1 | 21 | | 1078.9550 | 0.0002 | 0.4160E-02 | 4 | 18 | 0 | 18 | 18 | 3 | 16 | | 1082.2942 | | 0.1327E-02 |
| 4 | 8 | 3 | 8 | 9 | 4 | 6 | | 1077.0850 | 0.0000 | 0.1504E-01 | 8 | 8 | 2 | 7 | 8 | 5 | 4 | | 1082.3107 | | 0.1741E-03 |
| 4 | 8 | 3 | 5 | 9 | 4 | 5 | | 1077.0942 | -0.0001 | 0.1503E-01 | 8 | 7 | 2 | 6 | 7 | 5 | 3 | | 1082.3528 | | 0.8464E-04 |
| 8 | 15 | 1 | 15 | 16 | 4 | 12 | | 1077.2218 | | 0.6329E-04 | 4 | 14 | 2 | 13 | 15 | 3 | 13 | | 1082.4188 | -0.0003 | 0.2399E-01 |
| 4 | 18 | 2 | 16 | 19 | 3 | 16 | | 1077.3561 | -0.0001 | 0.1279E-01 | 8 | 7 | 2 | 5 | 7 | 5 | 2 | | 1082.5217 | | 0.7827E-04 |
| 4 | 19 | 1 | 19 | 20 | 2 | 19 | | 1077.3787 | | 0.2262E-02 | 8 | 8 | 2 | 6 | 8 | 5 | 3 | | 1082.7580 | | 0.1533E-03 |
| 4 | 30 | 4 | 26 | 30 | 5 | 26 | | 1077.6271 | | 0.6681E-03 | 4 | 13 | 5 | 8 | 12 | 6 | 6 | | 1082.8894 | | 0.1800E-02 |
| 4 | 29 | 4 | 25 | 29 | 5 | 25 | | 1077.6841 | | 0.8748E-03 | 4 | 13 | 5 | 9 | 12 | 6 | 7 | | 1082.8907 | | 0.1599E-02 |
| 4 | 28 | 4 | 24 | 28 | 5 | 24 | | 1077.8268 | | 0.1113E-02 | 8 | 9 | 2 | 7 | 9 | 5 | 4 | | 1082.9514 | | 0.2533E-03 |
| 4 | 22 | 1 | 21 | 23 | 2 | 21 | | 1077.8279 | | 0.1786E-02 | 8 | 10 | 2 | 8 | 10 | 5 | 5 | | 1083.2203 | | 0.3684E-03 |
| 4 | 27 | 4 | 23 | 27 | 5 | 23 | | 1078.0415 | | 0.1375E-02 | 4 | 30 | 2 | 29 | 30 | 3 | 27 | | 1083.2732 | | 0.3501E-03 |
| 4 | 11 | 5 | 6 | 10 | 6 | 4 | | 1078.1617 | -0.0011 | 0.1307E-02 | 8 | 18 | 3 | 15 | 17 | 6 | 12 | | 1083.3990 | | 0.5384E-04 |
| 4 | 11 | 5 | 7 | 10 | 6 | 5 | | 1078.1620 | -0.0013 | 0.1307E-02 | 8 | 11 | 2 | 9 | 11 | 5 | 6 | | 1083.5746 | | 0.4840E-03 |
| 4 | 20 | 0 | 20 | 20 | 3 | 18 | | 1078.1790 | | 0.1029E-02 | 4 | 15 | 2 | 13 | 16 | 3 | 13 | | 1083.6282 | -0.0004 | 0.2136E-01 |
| 4 | 28 | 4 | 22 | 28 | 5 | 22 | | 1078.3138 | | 0.1647E-02 | 4 | 24 | 6 | 18 | 23 | 7 | 16 | | 1083.9325 | | 0.9257E-03 |
| 4 | 25 | 4 | 21 | 26 | 5 | 21 | | 1078.6285 | | 0.1912E-02 | 4 | 24 | 6 | 19 | 23 | 7 | 17 | | 1083.9380 | | 0.9253E-03 |
| 4 | 24 | 4 | 20 | 24 | 5 | 20 | | 1078.9705 | | 0.2152E-02 | 8 | 12 | 2 | 10 | 12 | 5 | 7 | | 1084.0247 | | 0.5845E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 4 | 17 | 0 | 17 | 17 | 3 | 15 | | 1084.0873 | | 0.1433E-02 | 4 | 6 | 4 | 3 | 5 | 5 | 1 | 1090.4087 | | 0.1090E-02 | |
| 4 | 5 | 3 | 3 | 6 | 4 | 3 | | 1084.5763 | 0.0001 | 0.1782E-01 | 4 | 11 | 2 | 10 | 12 | 3 | 10 | 1090.8706 | 0.0000 | 0.3512E-01 | |
| 4 | 5 | 3 | 2 | 6 | 4 | 2 | | 1084.5768 | -0.0005 | 0.1782E-01 | 8 | 25 | 1 | 25 | 25 | 4 | 22 | 1091.0111 | | 0.5898E-04 | |
| 6 | 13 | 2 | 11 | 13 | 5 | 8 | | 1084.5786 | | 0.6574E-03 | 4 | 27 | 6 | 21 | 26 | 7 | 19 | 1091.0330 | | 0.4763E-03 | |
| 6 | 19 | 3 | 17 | 18 | 6 | 12 | | 1084.6672 | | 0.5143E-04 | 4 | 27 | 6 | 22 | 26 | 7 | 20 | 1091.0555 | | 0.4755E-03 | |
| 4 | 17 | 1 | 17 | 18 | 2 | 17 | | 1085.1804 | -0.0006 | 0.3486E-02 | 4 | 11 | 0 | 11 | 11 | 3 | 9 | 1091.1666 | | 0.8882E-03 | |
| 6 | 14 | 2 | 12 | 14 | 5 | 9 | | 1085.2428 | | 0.6982E-03 | 4 | 27 | 3 | 25 | 27 | 4 | 23 | 1091.4865 | | 0.7717E-03 | |
| 4 | 14 | 5 | 9 | 13 | 6 | 7 | | 1085.2572 | | 0.1650E-02 | 8 | 21 | 3 | 18 | 20 | 6 | 15 | 1091.5063 | | 0.8353E-04 | |
| 4 | 14 | 5 | 10 | 13 | 6 | 8 | | 1085.2599 | | 0.1649E-02 | 6 | 20 | 2 | 18 | 20 | 5 | 15 | 1091.5464 | | 0.4257E-03 | |
| 4 | 13 | 2 | 12 | 14 | 3 | 12 | | 1085.2983 | -0.0002 | 0.2785E-01 | 4 | 18 | 0 | 18 | 19 | 1 | 18 | 1091.5488 | 0.0002 | 0.8764E-02 | |
| 4 | 26 | 1 | 26 | 26 | 2 | 24 | | 1085.3337 | | 0.1447E-03 | 4 | 28 | 2 | 27 | 28 | 3 | 25 | 1091.5697 | | 0.8538E-03 | |
| 4 | 16 | 0 | 18 | 18 | 3 | 14 | | 1085.7010 | | 0.1489E-02 | 6 | 22 | 3 | 20 | 21 | 6 | 15 | 1091.7666 | | 0.5802E-04 | |
| 4 | 14 | 2 | 12 | 15 | 3 | 12 | | 1085.7408 | 0.0000 | 0.2472E-01 | 4 | 10 | 0 | 10 | 10 | 3 | 8 | 1091.7915 | | 0.6715E-03 | |
| 4 | 20 | 1 | 19 | 21 | 2 | 19 | | 1085.9858 | | 0.3044E-02 | 4 | 9 | 0 | 9 | 9 | 3 | 7 | 1092.2896 | | 0.4712E-03 | |
| 6 | 15 | 2 | 13 | 15 | 5 | 10 | | 1086.0206 | | 0.7006E-03 | 4 | 11 | 2 | 9 | 12 | 3 | 9 | 1092.3143 | 0.0002 | 0.3549E-01 | |
| 6 | 19 | 3 | 16 | 18 | 6 | 13 | | 1086.0499 | | 0.6374E-04 | 4 | 17 | 5 | 12 | 16 | 6 | 10 | 1092.3975 | | 0.1490E-02 | |
| 4 | 25 | 6 | 19 | 24 | 7 | 17 | | 1086.2910 | | 0.7539E-03 | 4 | 17 | 5 | 13 | 16 | 6 | 11 | 1092.4169 | | 0.1485E-02 | |
| 4 | 25 | 6 | 20 | 24 | 7 | 18 | | 1086.3000 | | 0.7534E-03 | 4 | 26 | 3 | 24 | 26 | 4 | 22 | 1092.5973 | | 0.1059E-02 | |
| 4 | 19 | 0 | 19 | 20 | 1 | 19 | | 1086.7421 | -0.0001 | 0.8903E-02 | 4 | 8 | 0 | 8 | 8 | 3 | 6 | 1092.8769 | | 0.3034E-03 | |
| 6 | 16 | 2 | 14 | 18 | 5 | 11 | | 1086.9127 | | 0.8753E-03 | 4 | 15 | 1 | 15 | 16 | 2 | 15 | 1092.7024 | -0.0002 | 0.5085E-02 | |
| 4 | 30 | 3 | 28 | 30 | 4 | 26 | | 1087.0424 | | 0.2673E-03 | 4 | 7 | 4 | 3 | 6 | 5 | 1 | 1092.7677 | 0.0011 | 0.2635E-02 | |
| 4 | 4 | 3 | 2 | 5 | 4 | 2 | | 1087.0533 | -0.0001 | 0.1856E-01 | 4 | 7 | 4 | 4 | 6 | 5 | 2 | 1092.7686 | 0.0003 | 0.2636E-02 | |
| 4 | 4 | 3 | 1 | 5 | 4 | 1 | | 1087.0538 | -0.0002 | 0.1856E-01 | 6 | 21 | 2 | 19 | 21 | 5 | 16 | 1092.9319 | | 0.3580E-03 | |
| 4 | 15 | 0 | 15 | 15 | 3 | 13 | | 1087.1357 | | 0.1485E-02 | 4 | 7 | 0 | 7 | 7 | 3 | 5 | 1092.9703 | | 0.1764E-03 | |
| 6 | 20 | 3 | 18 | 19 | 6 | 13 | | 1087.1935 | | 0.5546E-04 | 4 | 18 | 1 | 17 | 17 | 4 | 13 | 1093.1254 | | 0.5406E-04 | |
| 4 | 29 | 2 | 28 | 29 | 3 | 26 | | 1087.5822 | | 0.5518E-03 | 4 | 6 | 0 | 6 | 6 | 3 | 4 | 1093.1862 | | 0.9007E-04 | |
| 4 | 15 | 5 | 10 | 14 | 6 | 8 | | 1087.8299 | | 0.1843E-02 | 4 | 18 | 1 | 17 | 19 | 2 | 17 | 1093.3474 | 0.0001 | 0.4828E-02 | |
| 4 | 15 | 5 | 11 | 14 | 6 | 9 | | 1087.8353 | | 0.1841E-02 | 4 | 28 | 6 | 22 | 27 | 7 | 20 | 1093.4187 | | 0.3698E-03 | |
| 4 | 13 | 2 | 11 | 14 | 3 | 11 | | 1087.8879 | 0.0000 | 0.2826E-01 | 4 | 28 | 6 | 23 | 27 | 7 | 21 | 1093.4539 | | 0.3688E-03 | |
| 6 | 17 | 2 | 15 | 17 | 5 | 12 | | 1087.9170 | | 0.8276E-03 | 4 | 25 | 3 | 23 | 25 | 4 | 21 | 1093.5559 | | 0.1426E-02 | |
| 4 | 12 | 2 | 11 | 13 | 3 | 11 | | 1088.1138 | 0.0000 | 0.3140E-01 | 4 | 10 | 2 | 9 | 11 | 3 | 9 | 1093.5747 | 0.0001 | 0.3870E-01 | |
| 4 | 14 | 0 | 14 | 14 | 3 | 12 | | 1088.3938 | | 0.1414E-02 | 6 | 24 | 1 | 24 | 24 | 4 | 21 | 1093.8221 | | 0.1945E-03 | |
| 4 | 26 | 6 | 20 | 25 | 7 | 18 | | 1088.6573 | | 0.6041E-03 | 6 | 23 | 3 | 21 | 22 | 6 | 16 | 1094.0052 | | 0.5640E-04 | |
| 4 | 26 | 6 | 21 | 25 | 7 | 19 | | 1088.6718 | | 0.6034E-03 | 6 | 22 | 3 | 19 | 21 | 6 | 16 | 1094.3134 | | 0.9290E-04 | |
| 4 | 29 | 3 | 27 | 29 | 4 | 25 | | 1088.7298 | | 0.3880E-03 | 4 | 24 | 3 | 22 | 24 | 4 | 20 | 1094.3802 | | 0.1888E-02 | |
| 6 | 20 | 3 | 17 | 19 | 6 | 14 | | 1088.7515 | | 0.7371E-04 | 6 | 22 | 2 | 20 | 22 | 5 | 17 | 1094.3857 | | 0.2957E-03 | |
| 4 | 16 | 1 | 18 | 17 | 2 | 18 | | 1088.9779 | 0.0002 | 0.4240E-02 | 4 | 10 | 2 | 8 | 11 | 3 | 8 | 1094.5988 | 0.0000 | 0.3897E-01 | |
| 6 | 18 | 2 | 16 | 18 | 5 | 13 | | 1089.0291 | | 0.5655E-03 | 4 | 24 | 1 | 24 | 24 | 2 | 22 | 1094.5990 | | 0.3082E-03 | |
| 4 | 13 | 0 | 13 | 13 | 3 | 11 | | 1089.4791 | | 0.1281E-02 | 4 | 18 | 5 | 13 | 17 | 8 | 11 | 1094.7960 | | 0.1366E-02 | |
| 6 | 21 | 3 | 19 | 20 | 6 | 14 | | 1089.4948 | | 0.5771E-04 | 4 | 18 | 5 | 14 | 17 | 6 | 12 | 1094.8308 | | 0.1358E-02 | |
| 4 | 3 | 3 | 0 | 4 | 4 | 0 | | 1089.5208 | -0.0004 | 0.1935E-01 | 4 | 23 | 3 | 21 | 23 | 4 | 19 | 1095.0874 | 0.0001 | 0.2457E-02 | |
| 4 | 3 | 3 | 1 | 4 | 4 | 1 | | 1089.5208 | -0.0004 | 0.1935E-01 | 4 | 8 | 4 | 4 | 7 | 5 | 2 | 1095.1138 | 0.0014 | 0.4283E-02 | |
| 4 | 19 | 1 | 18 | 20 | 2 | 18 | | 1089.7629 | 0.0000 | 0.3869E-02 | 4 | 8 | 4 | 5 | 7 | 5 | 3 | 1095.1158 | -0.0009 | 0.4286E-02 | |
| 4 | 16 | 5 | 11 | 15 | 6 | 9 | | 1090.0093 | | 0.1586E-02 | 4 | 27 | 2 | 26 | 27 | 3 | 24 | 1095.2373 | | 0.1296E-02 | |
| 4 | 18 | 5 | 12 | 15 | 6 | 10 | | 1090.0198 | | 0.1583E-02 | 4 | 19 | 1 | 18 | 18 | 4 | 14 | 1095.6320 | | 0.6072E-04 | |
| 4 | 25 | 1 | 25 | 25 | 2 | 23 | | 1090.0447 | | 0.2119E-03 | 4 | 22 | 3 | 20 | 22 | 4 | 18 | 1095.6925 | 0.0002 | 0.3145E-02 | |
| 4 | 12 | 2 | 10 | 13 | 3 | 10 | | 1090.0775 | 0.0000 | 0.3188E-01 | 4 | 29 | 8 | 23 | 28 | 7 | 21 | 1095.8160 | | 0.2827E-03 | |
| 4 | 28 | 3 | 28 | 28 | 4 | 24 | | 1090.2040 | | 0.5524E-03 | 4 | 29 | 8 | 24 | 28 | 7 | 22 | 1095.8698 | | 0.2816E-03 | |
| 6 | 19 | 2 | 17 | 19 | 5 | 14 | | 1090.2419 | | 0.4963E-03 | 6 | 23 | 2 | 21 | 23 | 5 | 18 | 1095.8937 | | 0.2402E-03 | |
| 4 | 12 | 0 | 12 | 12 | 3 | 10 | | 1090.4000 | | 0.1099E-02 | 6 | 23 | 1 | 23 | 23 | 4 | 20 | 1096.1471 | | 0.6516E-03 | |
| 4 | 8 | 4 | 2 | 5 | 5 | 0 | | 1090.4084 | | 0.1090E-02 | 6 | 24 | 3 | 22 | 23 | 6 | 17 | 1096.2069 | | 0.5306E-04 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|------------|------------|---|----|----|----|----|----|----|-----------|------------|------------|----------|
| 4 | 21 | 3 | 19 | 21 | 4 | 17 | | 1098.2095 | -0.0003 | 0.3958E-02 | 4 | 6 | 3 | 4 | 6 | 4 | 2 | 1099.0955 | 0.0009 | 0.1170E-01 | |
| 4 | 9 | 2 | 8 | 10 | 3 | 8 | | 1098.2317 | 0.0001 | 0.4200E-01 | 4 | 6 | 3 | 3 | 6 | 4 | 3 | 1099.0970 | -0.0008 | 0.1170E-01 | |
| 4 | 17 | 0 | 17 | 18 | 1 | 17 | | 1098.2723 | 0.0000 | 0.1101E-01 | 4 | 5 | 3 | 3 | 5 | 4 | 1 | 1099.1516 | 0.0002 | 0.8945E-02 | |
| 4 | 14 | 1 | 14 | 15 | 2 | 14 | | 1098.3513 | -0.0001 | 0.8010E-02 | 4 | 5 | 3 | 2 | 5 | 4 | 2 | 1099.1522 | -0.0004 | 0.8945E-02 | |
| 4 | 20 | 3 | 18 | 20 | 4 | 18 | | 1098.6510 | 0.0000 | 0.4899E-02 | 4 | 4 | 3 | 2 | 4 | 4 | 0 | 1099.1986 | 0.0001 | 0.5184E-02 | |
| 4 | 17 | 1 | 16 | 18 | 2 | 16 | | 1098.7473 | 0.0001 | 0.5911E-02 | 4 | 4 | 3 | 1 | 4 | 4 | 1 | 1099.1987 | 0.0000 | 0.5184E-02 | |
| 4 | 9 | 2 | 7 | 10 | 3 | 7 | | 1098.9283 | 0.0002 | 0.4219E-01 | 4 | 8 | 2 | 6 | 9 | 3 | 6 | 1099.2979 | -0.0001 | 0.4502E-01 | |
| 4 | 19 | 3 | 17 | 19 | 4 | 15 | | 1097.0280 | -0.0001 | 0.5984E-02 | 4 | 20 | 5 | 15 | 19 | 6 | 13 | 1099.6315 | 0.1073E-02 | | |
| 6 | 23 | 3 | 20 | 22 | 6 | 17 | | 1097.1887 | 0.1014E-03 | | 4 | 20 | 6 | 16 | 19 | 6 | 14 | 1099.7332 | 0.1055E-02 | | |
| 4 | 19 | 5 | 14 | 18 | 6 | 12 | | 1097.2069 | 0.1223E-02 | | 4 | 10 | 4 | 6 | 9 | 5 | 4 | 1099.7607 | -0.0001 | 0.7103E-02 | |
| 4 | 19 | 5 | 15 | 18 | 6 | 13 | | 1097.2872 | 0.1211E-02 | | 4 | 10 | 4 | 7 | 9 | 5 | 5 | 1099.7729 | -0.0001 | 0.7129E-02 | |
| 4 | 18 | 3 | 16 | 18 | 4 | 14 | | 1097.3503 | -0.0003 | 0.7142E-02 | 4 | 13 | 1 | 13 | 14 | 2 | 13 | 1099.9225 | 0.0001 | 0.6997E-02 | |
| 6 | 24 | 2 | 22 | 24 | 5 | 19 | | 1097.4406 | 0.1922E-03 | | 4 | 16 | 1 | 15 | 17 | 2 | 15 | 1099.9718 | 0.0002 | 0.7097E-02 | |
| 4 | 9 | 4 | 5 | 8 | 5 | 3 | | 1097.4451 | 0.0018 | 0.5816E-02 | 6 | 24 | 3 | 21 | 23 | 6 | 18 | 1100.0551 | 0.1085E-03 | | |
| 4 | 9 | 4 | 6 | 8 | 5 | 4 | | 1097.4506 | -0.0038 | 0.5826E-02 | 6 | 29 | 6 | 24 | 30 | 7 | 23 | 1100.1437 | 0.5074E-04 | | |
| 6 | 24 | 8 | 16 | 25 | 9 | 17 | | 1097.5223 | 0.5882E-04 | | 4 | 21 | 1 | 20 | 20 | 4 | 16 | 1100.1924 | 0.8855E-04 | | |
| 6 | 24 | 8 | 17 | 25 | 9 | 16 | | 1097.5223 | 0.5882E-04 | | 6 | 23 | 8 | 16 | 24 | 9 | 15 | 1100.2473 | 0.7725E-04 | | |
| 6 | 22 | 1 | 22 | 22 | 4 | 19 | | 1097.6232 | 0.1785E-02 | | 6 | 23 | 8 | 15 | 24 | 9 | 16 | 1100.2473 | 0.7725E-04 | | |
| 4 | 17 | 3 | 15 | 17 | 4 | 13 | | 1097.8270 | 0.0004 | 0.8410E-02 | 6 | 28 | 2 | 24 | 26 | 5 | 21 | 1100.5812 | 0.1178E-03 | | |
| 4 | 16 | 3 | 14 | 16 | 4 | 12 | | 1097.8847 | -0.0003 | 0.9733E-02 | 4 | 16 | 0 | 16 | 17 | 1 | 16 | 1100.8944 | -0.0001 | 0.1369E-01 | |
| 4 | 20 | 1 | 19 | 19 | 4 | 15 | | 1097.9956 | 0.6572E-04 | | 6 | 17 | 10 | 8 | 18 | 11 | 7 | 1101.1300 | 0.5364E-04 | | |
| 4 | 15 | 3 | 13 | 15 | 4 | 11 | | 1098.0706 | 0.0002 | 0.1107E-01 | 6 | 17 | 10 | 7 | 18 | 11 | 8 | 1101.1300 | 0.5364E-04 | | |
| 4 | 21 | 3 | 18 | 21 | 4 | 18 | | 1098.2115 | 0.0028 | 0.3187E-02 | 4 | 7 | 2 | 8 | 8 | 3 | 8 | 1101.4264 | 0.4728E-01 | | |
| 4 | 30 | 8 | 24 | 29 | 7 | 22 | | 1098.2280 | 0.2130E-03 | | 4 | 25 | 2 | 24 | 25 | 3 | 22 | 1101.6292 | 0.2812E-02 | | |
| 4 | 14 | 3 | 12 | 14 | 4 | 10 | | 1098.2494 | -0.0002 | 0.1236E-01 | 4 | 7 | 2 | 5 | 8 | 3 | 5 | 1101.7004 | -0.0001 | 0.4736E-01 | |
| 4 | 30 | 6 | 25 | 29 | 7 | 23 | | 1098.3068 | 0.2117E-03 | | 4 | 24 | 3 | 21 | 24 | 4 | 21 | 1101.7829 | 0.1785E-02 | | |
| 4 | 20 | 3 | 17 | 20 | 4 | 17 | | 1098.3663 | 0.0019 | 0.4463E-02 | 4 | 23 | 3 | 20 | 23 | 4 | 20 | 1101.8711 | 0.1892E-02 | | |
| 4 | 18 | 3 | 15 | 18 | 4 | 15 | | 1098.3818 | 0.0026 | 0.6947E-02 | 4 | 11 | 4 | 7 | 10 | 5 | 5 | 1102.0588 | 0.8067E-02 | | |
| 4 | 17 | 3 | 14 | 17 | 4 | 14 | | 1098.3844 | 0.0006 | 0.8271E-02 | 4 | 21 | 5 | 16 | 20 | 6 | 14 | 1102.0710 | 0.9225E-03 | | |
| 4 | 19 | 3 | 16 | 19 | 4 | 16 | | 1098.3875 | -0.0030 | 0.5679E-02 | 4 | 25 | 3 | 22 | 25 | 4 | 22 | 1102.0812 | 0.1482E-02 | | |
| 4 | 16 | 3 | 13 | 16 | 4 | 13 | | 1098.4054 | 0.0004 | 0.9634E-02 | 4 | 11 | 4 | 8 | 10 | 5 | 6 | 1102.0831 | -0.0004 | 0.8124E-02 | |
| 4 | 13 | 3 | 11 | 13 | 4 | 9 | | 1098.4059 | -0.0001 | 0.1353E-01 | 6 | 27 | 2 | 25 | 27 | 5 | 22 | 1102.1372 | 0.9028E-04 | | |
| 4 | 15 | 3 | 12 | 15 | 4 | 12 | | 1098.4456 | 0.0000 | 0.1100E-01 | 4 | 22 | 1 | 21 | 21 | 4 | 17 | 1102.1974 | 0.6890E-04 | | |
| 4 | 14 | 3 | 11 | 14 | 4 | 11 | | 1098.5018 | 0.0001 | 0.1231E-01 | 4 | 21 | 5 | 17 | 20 | 6 | 15 | 1102.2382 | 0.8968E-03 | | |
| 4 | 12 | 3 | 10 | 12 | 4 | 8 | | 1098.5436 | 0.0001 | 0.1452E-01 | 6 | 28 | 6 | 22 | 29 | 7 | 23 | 1102.5149 | 0.8806E-04 | | |
| 4 | 13 | 3 | 10 | 13 | 4 | 10 | | 1098.5703 | 0.0001 | 0.1350E-01 | 4 | 26 | 3 | 23 | 26 | 4 | 23 | 1102.8332 | 0.1137E-02 | | |
| 4 | 26 | 2 | 25 | 28 | 3 | 23 | | 1098.5885 | 0.1929E-02 | | 4 | 22 | 3 | 19 | 22 | 4 | 19 | 1102.7643 | 0.1441E-02 | | |
| 4 | 12 | 3 | 9 | 12 | 4 | 9 | | 1098.6469 | -0.0001 | 0.1450E-01 | 6 | 28 | 6 | 23 | 29 | 7 | 22 | 1102.7828 | 0.7096E-04 | | |
| 4 | 11 | 3 | 9 | 11 | 4 | 7 | | 1098.6653 | 0.0001 | 0.1524E-01 | 6 | 25 | 3 | 22 | 24 | 6 | 19 | 1102.9800 | 0.1133E-03 | | |
| 4 | 11 | 3 | 8 | 11 | 4 | 8 | | 1098.7274 | 0.0000 | 0.1522E-01 | 6 | 22 | 8 | 14 | 23 | 9 | 15 | 1102.9845 | 0.1003E-03 | | |
| 4 | 10 | 3 | 8 | 10 | 4 | 6 | | 1098.7734 | 0.0001 | 0.1559E-01 | 6 | 22 | 8 | 15 | 23 | 9 | 14 | 1102.9845 | 0.1003E-03 | | |
| 4 | 10 | 3 | 7 | 10 | 4 | 7 | | 1098.8090 | 0.0001 | 0.1558E-01 | 4 | 15 | 1 | 14 | 18 | 2 | 14 | 1103.0306 | 0.8352E-02 | | |
| 4 | 8 | 2 | 7 | 9 | 3 | 7 | | 1098.8470 | -0.0001 | 0.4490E-01 | 4 | 22 | 1 | 22 | 22 | 2 | 20 | 1103.1740 | 0.6362E-03 | | |
| 4 | 9 | 3 | 7 | 9 | 4 | 5 | | 1098.8695 | 0.0002 | 0.1550E-01 | 4 | 27 | 3 | 24 | 27 | 4 | 24 | 1103.3424 | 0.8617E-03 | | |
| 4 | 9 | 3 | 6 | 9 | 4 | 6 | | 1098.8885 | 0.0000 | 0.1550E-01 | 4 | 12 | 1 | 12 | 13 | 2 | 12 | 1103.4142 | 0.8021E-02 | | |
| 4 | 8 | 3 | 6 | 8 | 4 | 4 | | 1098.9547 | 0.0000 | 0.1488E-01 | 6 | 28 | 2 | 28 | 28 | 5 | 23 | 1103.6559 | 0.6824E-04 | | |
| 4 | 8 | 3 | 5 | 8 | 4 | 5 | | 1098.9642 | 0.0000 | 0.1488E-01 | 4 | 6 | 2 | 5 | 7 | 3 | 5 | 1103.9744 | -0.0001 | 0.4907E-01 | |
| 4 | 23 | 1 | 23 | 23 | 2 | 21 | | 1098.9803 | 0.4447E-03 | | 4 | 23 | 1 | 22 | 22 | 4 | 18 | 1103.9865 | 0.6671E-04 | | |
| 6 | 25 | 2 | 23 | 25 | 5 | 20 | | 1099.0092 | 0.1515E-03 | | 6 | 18 | 10 | 6 | 17 | 11 | 7 | 1104.0552 | 0.6523E-04 | | |
| 4 | 7 | 3 | 5 | 7 | 4 | 3 | | 1099.0298 | 0.0024 | 0.1364E-01 | 6 | 18 | 10 | 7 | 17 | 11 | 6 | 1104.0552 | 0.6523E-04 | | |
| 4 | 7 | 3 | 4 | 7 | 4 | 4 | | 1099.0341 | -0.0020 | 0.1364E-01 | 6 | 9 | 2 | 8 | 8 | 5 | 3 | 1104.1133 | 0.5741E-04 | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 4 | 6 | 2 | 4 | 7 | 3 | 4 | | 1104.1284 | -0.0001 | 0.4912E-01 | 6 | 14 | 10 | 4 | 15 | 11 | 5 | 1109.8588 | | 0.9340E-04 | |
| 4 | 28 | 3 | 25 | 28 | 4 | 25 | | 1104.1732 | | 0.6424E-03 | 6 | 14 | 10 | 5 | 15 | 11 | 4 | 1109.8588 | | 0.9340E-04 | |
| 4 | 12 | 4 | 8 | 11 | 5 | 6 | | 1104.3376 | 0.0002 | 0.8877E-02 | 4 | 24 | 5 | 20 | 23 | 6 | 18 | 1110.1311 | | 0.4703E-03 | |
| 4 | 24 | 2 | 23 | 24 | 3 | 21 | | 1104.3682 | 0.0013 | 0.4013E-02 | 4 | 10 | 1 | 10 | 11 | 2 | 18 | 1110.1545 | -0.0002 | 0.1004E-01 | |
| 4 | 12 | 4 | 9 | 11 | 5 | 7 | | 1104.3820 | -0.0003 | 0.8787E-02 | 6 | 11 | 2 | 9 | 10 | 5 | 6 | 1110.2900 | | 0.1240E-03 | |
| 6 | 21 | 1 | 21 | 21 | 4 | 18 | | 1104.4752 | | 0.8447E-03 | 6 | 25 | 6 | 19 | 28 | 7 | 20 | 1110.5271 | | 0.1747E-03 | |
| 4 | 22 | 5 | 17 | 21 | 6 | 15 | | 1104.5265 | | 0.7784E-03 | 6 | 25 | 6 | 20 | 28 | 7 | 19 | 1110.6780 | | 0.1803E-03 | |
| 4 | 22 | 5 | 18 | 21 | 6 | 18 | | 1104.7946 | | 0.7435E-03 | 8 | 18 | 1 | 18 | 18 | 4 | 15 | 1110.7104 | | 0.2507E-03 | |
| 4 | 29 | 3 | 28 | 29 | 4 | 26 | | 1105.1041 | | 0.4725E-03 | 6 | 22 | 7 | 16 | 23 | 8 | 15 | 1110.7351 | | 0.7053E-04 | |
| 6 | 29 | 2 | 27 | 29 | 5 | 24 | | 1105.1147 | | 0.5088E-04 | 6 | 22 | 7 | 15 | 23 | 8 | 16 | 1110.7351 | | 0.7053E-04 | |
| 6 | 27 | 8 | 21 | 28 | 7 | 22 | | 1105.1958 | | 0.9439E-04 | 4 | 21 | 2 | 20 | 21 | 3 | 18 | 1110.9039 | 0.0005 | 0.1021E-01 | |
| 4 | 15 | 0 | 15 | 16 | 1 | 15 | | 1105.3989 | 0.0000 | 0.1681E-01 | 4 | 20 | 1 | 20 | 20 | 2 | 18 | 1110.9443 | | 0.1263E-02 | |
| 6 | 27 | 6 | 22 | 28 | 7 | 21 | | 1105.4181 | | 0.9803E-04 | 4 | 15 | 4 | 11 | 14 | 5 | 9 | 1111.0392 | -0.0002 | 0.8587E-02 | |
| 4 | 24 | 1 | 23 | 23 | 4 | 19 | | 1105.5356 | | 0.6220E-04 | 6 | 19 | 8 | 12 | 20 | 9 | 11 | 1111.0638 | | 0.2042E-03 | |
| 6 | 21 | 6 | 13 | 22 | 9 | 14 | | 1105.6733 | | 0.1286E-03 | 6 | 19 | 8 | 11 | 20 | 9 | 12 | 1111.0638 | | 0.2042E-03 | |
| 6 | 21 | 8 | 14 | 22 | 9 | 13 | | 1105.6733 | | 0.1286E-03 | 6 | 12 | 2 | 11 | 11 | 5 | 6 | 1111.1595 | | 0.2778E-03 | |
| 6 | 26 | 3 | 23 | 25 | 6 | 20 | | 1105.8572 | | 0.1147E-03 | 4 | 15 | 4 | 12 | 14 | 5 | 10 | 1111.2219 | -0.0005 | 0.8924E-02 | |
| 4 | 14 | 1 | 13 | 15 | 2 | 13 | | 1105.9346 | 0.0000 | 0.9633E-02 | 4 | 5 | 3 | 3 | 4 | 4 | 1 | 1111.2968 | | 0.6128E-03 | |
| 4 | 36 | 3 | 27 | 30 | 4 | 27 | | 1106.1183 | | 0.3438E-03 | 4 | 5 | 3 | 2 | 4 | 4 | 0 | 1111.2972 | | 0.6128E-03 | |
| 6 | 10 | 2 | 9 | 9 | 5 | 4 | | 1106.4773 | | 0.1083E-03 | 4 | 12 | 1 | 11 | 13 | 2 | 11 | 1111.3271 | 0.0000 | 0.1205E-01 | |
| 4 | 5 | 2 | 4 | 6 | 3 | 4 | | 1106.4958 | 0.0000 | 0.5024E-01 | 4 | 3 | 2 | 2 | 4 | 3 | 2 | 1111.4753 | 0.0001 | 0.5108E-01 | |
| 6 | 20 | 1 | 20 | 20 | 4 | 17 | | 1106.5425 | | 0.5140E-03 | 4 | 3 | 2 | 1 | 4 | 3 | 1 | 1111.4866 | -0.0002 | 0.5108E-01 | |
| 4 | 5 | 2 | 3 | 8 | 3 | 3 | | 1106.5736 | 0.0001 | 0.5027E-01 | 6 | 28 | 3 | 25 | 27 | 6 | 22 | 1111.5251 | | 0.1041E-03 | |
| 4 | 13 | 4 | 9 | 12 | 5 | 7 | | 1106.5956 | -0.0002 | 0.8934E-02 | 6 | 16 | 9 | 7 | 17 | 10 | 8 | 1111.7190 | | 0.5469E-04 | |
| 4 | 13 | 4 | 10 | 12 | 5 | 8 | | 1106.6707 | -0.0001 | 0.9120E-02 | 6 | 16 | 9 | 8 | 17 | 10 | 7 | 1111.7190 | | 0.5469E-04 | |
| 4 | 23 | 2 | 22 | 23 | 3 | 20 | | 1106.8171 | 0.0012 | 0.5802E-02 | 4 | 25 | 5 | 20 | 24 | 6 | 18 | 1111.9867 | | 0.4216E-03 | |
| 4 | 25 | 1 | 24 | 24 | 4 | 20 | | 1106.8226 | | 0.5585E-04 | 4 | 8 | 8 | 8 | 7 | 3 | 4 | 1112.1240 | | 0.8795E-04 | |
| 4 | 11 | 1 | 11 | 12 | 2 | 11 | | 1106.8252 | 0.0000 | 0.9047E-02 | 4 | 20 | 2 | 19 | 20 | 3 | 17 | 1112.5767 | 0.0001 | 0.1332E-01 | |
| 6 | 15 | 10 | 6 | 16 | 11 | 5 | | 1106.9653 | | 0.7848E-04 | 6 | 17 | 1 | 17 | 17 | 4 | 14 | 1112.6545 | | 0.1887E-03 | |
| 6 | 15 | 10 | 5 | 16 | 11 | 6 | | 1106.9653 | | 0.7848E-04 | 6 | 13 | 10 | 3 | 14 | 11 | 4 | 1112.7334 | | 0.1101E-03 | |
| 4 | 23 | 5 | 18 | 22 | 6 | 16 | | 1106.9979 | | 0.8451E-03 | 6 | 13 | 10 | 4 | 14 | 11 | 3 | 1112.7334 | | 0.1101E-03 | |
| 4 | 21 | 1 | 21 | 21 | 2 | 19 | | 1107.1680 | | 0.9014E-03 | 4 | 25 | 5 | 21 | 24 | 6 | 19 | 1112.9574 | | 0.3567E-03 | |
| 4 | 23 | 5 | 19 | 22 | 6 | 17 | | 1107.4188 | | 0.8001E-03 | 6 | 12 | 2 | 10 | 11 | 5 | 7 | 1113.1707 | | 0.1684E-03 | |
| 6 | 10 | 2 | 8 | 9 | 5 | 6 | | 1107.5056 | | 0.8207E-04 | 6 | 24 | 6 | 18 | 25 | 7 | 19 | 1113.1785 | | 0.2331E-03 | |
| 6 | 28 | 6 | 20 | 27 | 7 | 21 | | 1107.8865 | | 0.1292E-03 | 4 | 16 | 4 | 12 | 15 | 5 | 10 | 1113.2197 | -0.0003 | 0.7923E-02 | |
| 6 | 26 | 6 | 21 | 27 | 7 | 20 | | 1108.0500 | | 0.1338E-03 | 6 | 24 | 6 | 19 | 25 | 7 | 18 | 1113.3016 | | 0.2400E-03 | |
| 6 | 23 | 7 | 16 | 24 | 8 | 17 | | 1108.0853 | | 0.5431E-04 | 6 | 21 | 7 | 14 | 22 | 8 | 15 | 1113.3785 | | 0.9049E-04 | |
| 6 | 23 | 7 | 17 | 24 | 8 | 18 | | 1108.0854 | | 0.5431E-04 | 6 | 21 | 7 | 15 | 22 | 8 | 14 | 1113.3787 | | 0.9049E-04 | |
| 6 | 20 | 8 | 13 | 21 | 9 | 12 | | 1108.3733 | | 0.1630E-03 | 4 | 9 | 1 | 9 | 10 | 2 | 9 | 1113.4019 | -0.0003 | 0.1094E-01 | |
| 6 | 20 | 8 | 12 | 21 | 9 | 13 | | 1108.3733 | | 0.1630E-03 | 6 | 13 | 2 | 12 | 12 | 5 | 7 | 1113.4730 | | 0.3961E-03 | |
| 6 | 19 | 1 | 19 | 19 | 4 | 16 | | 1108.6592 | | 0.3465E-03 | 4 | 16 | 4 | 13 | 15 | 5 | 11 | 1113.4863 | -0.0003 | 0.8485E-02 | |
| 4 | 13 | 1 | 12 | 14 | 2 | 12 | | 1108.8957 | 0.0000 | 0.1089E-01 | 4 | 27 | 3 | 24 | 28 | 2 | 28 | 1113.5513 | | 0.8776E-04 | |
| 6 | 27 | 3 | 24 | 28 | 8 | 21 | | 1108.7203 | | 0.1117E-03 | 4 | 6 | 3 | 4 | 5 | 4 | 2 | 1113.8707 | 0.0009 | 0.1462E-02 | |
| 6 | 11 | 2 | 10 | 10 | 5 | 5 | | 1108.8269 | | 0.1813E-03 | 4 | 6 | 3 | 3 | 5 | 4 | 1 | 1113.8724 | -0.0008 | 0.1462E-02 | |
| 4 | 14 | 4 | 10 | 13 | 5 | 8 | | 1108.8302 | -0.0003 | 0.8862E-02 | 6 | 18 | 8 | 11 | 19 | 9 | 10 | 1113.7443 | | 0.2529E-03 | |
| 4 | 14 | 4 | 11 | 13 | 5 | 9 | | 1108.9503 | -0.0003 | 0.9153E-02 | 6 | 18 | 8 | 10 | 19 | 9 | 11 | 1113.7443 | | 0.2529E-03 | |
| 4 | 22 | 2 | 21 | 22 | 3 | 19 | | 1108.9902 | | 0.7647E-02 | 4 | 11 | 1 | 10 | 12 | 2 | 10 | 1113.8439 | -0.0001 | 0.1307E-01 | |
| 4 | 4 | 2 | 3 | 5 | 3 | 3 | | 1108.9950 | -0.0003 | 0.5084E-01 | 4 | 2 | 2 | 1 | 3 | 3 | 1 | 1113.9399 | 0.0010 | 0.5154E-01 | |
| 4 | 4 | 2 | 2 | 5 | 3 | 2 | | 1109.0284 | -0.0001 | 0.5085E-01 | 4 | 2 | 2 | 0 | 3 | 3 | 0 | 1113.9423 | -0.0012 | 0.5154E-01 | |
| 4 | 24 | 5 | 19 | 23 | 6 | 17 | | 1109.4850 | | 0.5257E-03 | 6 | 27 | 5 | 23 | 28 | 8 | 22 | 1113.9843 | | 0.5809E-04 | |
| 4 | 14 | 0 | 14 | 15 | 1 | 14 | | 1109.7720 | 0.0001 | 0.2038E-01 | 6 | 27 | 5 | 22 | 28 | 8 | 23 | 1113.9852 | | 0.5850E-04 | |

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OF POOR QUALITY

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|------------|------------|----|----|----|----|----|----|-----------|------------|-----------|------------|----------|
| 4 | 13 | 0 | 13 | 14 | 1 | 13 | | 1114.0031 | -0.0001 | 0.2433E-01 | 6 | 11 | 10 | 1 | 12 | 11 | 2 | 1118.4200 | | 0.1484E-03 | |
| 4 | 19 | 2 | 18 | 19 | 3 | 18 | | 1114.0283 | 0.0001 | 0.1699E-01 | 6 | 22 | 6 | 18 | 23 | 7 | 17 | 1118.4537 | | 0.3997E-03 | |
| 4 | 9 | 0 | 9 | 8 | 3 | 5 | | 1114.1687 | | 0.1526E-03 | 6 | 22 | 6 | 17 | 23 | 7 | 16 | 1118.5344 | | 0.4098E-03 | |
| 6 | 29 | 3 | 28 | 28 | 6 | 23 | | 1114.2545 | | 0.9281E-04 | 4 | 26 | 8 | 26 | 25 | 3 | 22 | 1118.5400 | | 0.9735E-04 | |
| 6 | 15 | 9 | 7 | 18 | 10 | 6 | | 1114.4532 | | 0.8553E-04 | 4 | 9 | 1 | 8 | 10 | 2 | 8 | 1118.5999 | -0.0002 | 0.1450E-01 | |
| 6 | 15 | 9 | 6 | 18 | 10 | 7 | | 1114.4532 | | 0.8553E-04 | 6 | 19 | 7 | 12 | 20 | 8 | 13 | 1118.6453 | | 0.1437E-03 | |
| 6 | 16 | 1 | 16 | 16 | 4 | 13 | | 1114.4749 | | 0.1444E-03 | 6 | 19 | 7 | 13 | 20 | 8 | 12 | 1118.6453 | | 0.1437E-03 | |
| 4 | 19 | 1 | 19 | 19 | 2 | 17 | | 1114.4982 | 0.0005 | 0.1750E-02 | 4 | 14 | 2 | 13 | 14 | 3 | 11 | 1118.6671 | -0.0003 | 0.4132E-01 | |
| 4 | 26 | 5 | 21 | 25 | 6 | 19 | | 1114.5017 | | 0.3330E-03 | 6 | 29 | 4 | 25 | 30 | 5 | 26 | 1118.8760 | | 0.1438E-03 | |
| 4 | 18 | 2 | 17 | 18 | 3 | 15 | | 1115.2788 | 0.0000 | 0.2121E-01 | 4 | 27 | 5 | 23 | 26 | 6 | 21 | 1119.0645 | | 0.1842E-03 | |
| 4 | 17 | 4 | 13 | 18 | 5 | 11 | | 1115.3683 | -0.0001 | 0.7170E-02 | 6 | 18 | 8 | 9 | 17 | 9 | 8 | 1119.0732 | | 0.3744E-03 | |
| 6 | 12 | 10 | 3 | 13 | 11 | 2 | | 1115.5879 | | 0.1284E-03 | 6 | 18 | 8 | 8 | 17 | 9 | 9 | 1119.0732 | | 0.3744E-03 | |
| 6 | 12 | 10 | 2 | 13 | 11 | 3 | | 1115.5879 | | 0.1284E-03 | 6 | 25 | 5 | 20 | 26 | 6 | 21 | 1119.1382 | | 0.1084E-03 | |
| 4 | 17 | 4 | 14 | 16 | 5 | 12 | | 1115.7437 | -0.0006 | 0.7885E-02 | 6 | 13 | 1 | 13 | 13 | 4 | 10 | 1119.1583 | | 0.8242E-04 | |
| 6 | 14 | 2 | 13 | 13 | 5 | 8 | | 1115.7848 | | 0.5328E-03 | 4 | 13 | 2 | 12 | 13 | 3 | 10 | 1119.2017 | -0.0003 | 0.4625E-01 | |
| 6 | 23 | 8 | 17 | 24 | 7 | 18 | | 1115.8208 | | 0.3072E-03 | 6 | 25 | 5 | 21 | 26 | 6 | 20 | 1119.2170 | | 0.1031E-03 | |
| 6 | 23 | 6 | 18 | 24 | 7 | 17 | | 1115.9205 | | 0.3156E-03 | 6 | 14 | 2 | 12 | 13 | 5 | 9 | 1119.2518 | | 0.2425E-03 | |
| 4 | 28 | 5 | 22 | 25 | 6 | 20 | | 1115.9258 | | 0.2611E-03 | 4 | 12 | 0 | 12 | 11 | 3 | 8 | 1119.5343 | | 0.4475E-03 | |
| 6 | 20 | 7 | 14 | 21 | 8 | 13 | | 1116.0158 | | 0.1147E-03 | 4 | 19 | 4 | 15 | 18 | 5 | 13 | 1119.5535 | 0.0000 | 0.5401E-02 | |
| 6 | 20 | 7 | 13 | 21 | 8 | 14 | | 1116.0158 | | 0.1147E-03 | 4 | 28 | 5 | 23 | 27 | 6 | 21 | 1119.5820 | | 0.1991E-03 | |
| 4 | 7 | 3 | 5 | 6 | 4 | 3 | | 1116.0359 | 0.0017 | 0.2364E-02 | 4 | 12 | 2 | 11 | 12 | 3 | 9 | 1119.6431 | 0.0001 | 0.5062E-01 | |
| 4 | 7 | 3 | 4 | 6 | 4 | 2 | | 1116.0402 | -0.0026 | 0.2364E-02 | 4 | 7 | 1 | 7 | 8 | 2 | 7 | 1119.6490 | | 0.1230E-01 | |
| 4 | 10 | 0 | 10 | 9 | 3 | 6 | | 1116.0953 | | 0.2380E-03 | 4 | 25 | 3 | 22 | 26 | 2 | 24 | 1119.7188 | | 0.1295E-03 | |
| 6 | 13 | 2 | 11 | 12 | 5 | 8 | | 1116.1556 | | 0.2094E-03 | 6 | 13 | 9 | 4 | 14 | 10 | 5 | 1119.8755 | | 0.9106E-04 | |
| 6 | 15 | 1 | 15 | 15 | 4 | 12 | | 1116.1854 | | 0.1107E-03 | 6 | 13 | 9 | 5 | 14 | 10 | 4 | 1119.8755 | | 0.9106E-04 | |
| 4 | 10 | 1 | 9 | 11 | 2 | 9 | | 1116.2822 | 0.0000 | 0.1390E-01 | 6 | 28 | 4 | 25 | 29 | 5 | 24 | 1119.9238 | | 0.1924E-03 | |
| 4 | 27 | 0 | 27 | 28 | 3 | 23 | | 1116.3246 | | 0.6650E-04 | 4 | 11 | 2 | 10 | 11 | 3 | 8 | 1120.0048 | 0.0000 | 0.5415E-01 | |
| 4 | 17 | 2 | 16 | 17 | 3 | 14 | | 1116.3489 | 0.0000 | 0.2588E-01 | 4 | 19 | 4 | 18 | 18 | 5 | 14 | 1120.2369 | -0.0003 | 0.6404E-02 | |
| 6 | 17 | 8 | 10 | 18 | 9 | 9 | | 1116.4143 | | 0.3095E-03 | 8 | 18 | 2 | 15 | 15 | 5 | 10 | 1120.2744 | | 0.8362E-03 | |
| 6 | 17 | 8 | 9 | 18 | 9 | 10 | | 1116.4143 | | 0.3095E-03 | 4 | 10 | 2 | 9 | 16 | 3 | 7 | 1120.2988 | -0.0001 | 0.5652E-01 | |
| 4 | 28 | 3 | 23 | 27 | 2 | 25 | | 1116.5273 | | 0.9523E-04 | 4 | 25 | 0 | 25 | 24 | 3 | 21 | 1120.4409 | | 0.1387E-03 | |
| 6 | 26 | 5 | 21 | 27 | 6 | 22 | | 1116.5619 | | 0.8012E-04 | 4 | 9 | 2 | 8 | 9 | 3 | 6 | 1120.5365 | -0.0002 | 0.5744E-01 | |
| 4 | 8 | 1 | 8 | 9 | 2 | 8 | | 1116.5867 | -0.0003 | 0.1171E-01 | 4 | 8 | 2 | 7 | 8 | 3 | 5 | 1120.7244 | -0.0001 | 0.5666E-01 | |
| 6 | 26 | 5 | 22 | 27 | 6 | 21 | | 1116.5851 | | 0.7919E-04 | 4 | 9 | 3 | 7 | 8 | 4 | 5 | 1120.7395 | -0.0001 | 0.3947E-02 | |
| 4 | 30 | 5 | 26 | 29 | 6 | 24 | | 1116.9010 | | 0.7869E-04 | 4 | 9 | 3 | 6 | 8 | 4 | 4 | 1120.7583 | 0.0001 | 0.3946E-02 | |
| 4 | 27 | 5 | 22 | 26 | 6 | 20 | | 1117.0276 | | 0.2593E-03 | 4 | 29 | 4 | 25 | 36 | 3 | 27 | 1120.7631 | | 0.6936E-04 | |
| 6 | 14 | 9 | 5 | 15 | 10 | 8 | | 1117.1724 | | 0.7768E-04 | 4 | 7 | 2 | 6 | 7 | 3 | 4 | 1120.8734 | 0.0002 | 0.5392E-01 | |
| 6 | 14 | 9 | 6 | 15 | 10 | 5 | | 1117.1724 | | 0.7768E-04 | 4 | 8 | 1 | 7 | 9 | 2 | 7 | 1120.8759 | | 0.1483E-01 | |
| 6 | 29 | 4 | 26 | 30 | 5 | 25 | | 1117.2124 | | 0.1343E-03 | 4 | 17 | 1 | 17 | 17 | 2 | 15 | 1120.8981 | -0.0003 | 0.3213E-02 | |
| 4 | 18 | 2 | 15 | 16 | 3 | 13 | | 1117.2576 | 0.0000 | 0.3091E-01 | 4 | 6 | 2 | 5 | 6 | 3 | 3 | 1120.9898 | -0.0002 | 0.4902E-01 | |
| 4 | 18 | 4 | 14 | 17 | 5 | 12 | | 1117.4813 | 0.0003 | 0.8311E-02 | 4 | 13 | 0 | 13 | 12 | 3 | 9 | 1121.0085 | | 0.5503E-03 | |
| 6 | 14 | 1 | 14 | 14 | 4 | 11 | | 1117.7256 | | 0.8398E-04 | 6 | 21 | 6 | 15 | 22 | 7 | 16 | 1121.0779 | | 0.5134E-03 | |
| 4 | 18 | 1 | 18 | 18 | 2 | 16 | | 1117.8185 | -0.0001 | 0.2389E-02 | 4 | 5 | 2 | 4 | 5 | 3 | 2 | 1121.0787 | 0.0000 | 0.4175E-01 | |
| 4 | 11 | 0 | 11 | 10 | 3 | 7 | | 1117.8907 | | 0.3393E-03 | 6 | 21 | 6 | 16 | 22 | 7 | 15 | 1121.1427 | | 0.6256E-03 | |
| 4 | 18 | 4 | 15 | 17 | 5 | 13 | | 1117.9941 | -0.0007 | 0.7176E-02 | 4 | 4 | 2 | 3 | 4 | 3 | 1 | 1121.1458 | 0.0032 | 0.3183E-01 | |
| 4 | 15 | 2 | 14 | 15 | 3 | 12 | | 1118.0245 | -0.0001 | 0.3613E-01 | 4 | 6 | 2 | 4 | 6 | 3 | 4 | 1121.1499 | -0.0010 | 0.4907E-01 | |
| 6 | 15 | 2 | 14 | 14 | 5 | 9 | | 1118.0328 | | 0.8819E-03 | 4 | 5 | 2 | 3 | 5 | 3 | 3 | 1121.1588 | 0.0016 | 0.4178E-01 | |
| 4 | 12 | 0 | 12 | 13 | 1 | 12 | | 1118.0852 | 0.0001 | 0.2857E-01 | 4 | 7 | 2 | 5 | 7 | 3 | 5 | 1121.1622 | -0.0017 | 0.5403E-01 | |
| 4 | 8 | 3 | 6 | 7 | 4 | 4 | | 1118.3923 | -0.0002 | 0.3213E-02 | 4 | 4 | 2 | 2 | 4 | 3 | 2 | 1121.1801 | -0.0002 | 0.3184E-01 | |
| 4 | 8 | 3 | 5 | 7 | 4 | 3 | | 1118.4017 | -0.0006 | 0.3213E-02 | 4 | 3 | 2 | 2 | 3 | 3 | 0 | 1121.1947 | 0.0004 | 0.1859E-01 | |
| 6 | 11 | 10 | 2 | 12 | 11 | 1 | | 1118.4200 | 0.1484E-03 | 6 | 28 | 4 | 24 | 29 | 5 | 25 | 1121.1987 | 0.2027E-03 | | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 4 | 8 | 2 | 6 | | 8 | 3 | 6 | 1121.2053 | 0.0000 | 0.5687E-01 | 6 | 14 | 8 | 7 | | 15 | 9 | 8 | 1124.3568 | 0.5295E-03 | |
| 4 | 3 | 2 | 1 | | 3 | 3 | 1 | 1121.2061 | | 0.1859E-01 | 4 | 17 | 2 | 15 | | 17 | 3 | 15 | 1124.3752 | -0.0001 | 0.2981E-01 |
| 6 | 10 | 10 | 1 | | 11 | 11 | 0 | 1121.2279 | | 0.1701E-03 | 6 | 28 | 3 | 28 | | 29 | 4 | 25 | 1124.5852 | 0.5319E-04 | |
| 6 | 10 | 10 | 0 | | 11 | 11 | 1 | 1121.2279 | | 0.1701E-03 | 4 | 24 | 2 | 22 | | 25 | 1 | 24 | 1124.8447 | 0.3539E-03 | |
| 6 | 18 | 7 | 11 | | 19 | 8 | 12 | 1121.2675 | | 0.1778E-03 | 4 | 30 | 5 | 25 | | 29 | 6 | 23 | 1124.8447 | 0.1130E-03 | |
| 6 | 18 | 7 | 12 | | 19 | 8 | 11 | 1121.2675 | | 0.1778E-03 | 6 | 18 | 2 | 17 | | 17 | 5 | 12 | 1124.8748 | 0.1127E-02 | |
| 4 | 9 | 2 | 7 | | 9 | 3 | 7 | 1121.2894 | 0.0000 | 0.5781E-01 | 4 | 21 | 4 | 18 | | 20 | 5 | 18 | 1124.8951 | -0.0007 | 0.4829E-02 |
| 4 | 10 | 2 | 8 | | 10 | 3 | 8 | 1121.4248 | 0.0000 | 0.5711E-01 | 4 | 17 | 0 | 17 | | 18 | 3 | 13 | 1124.9003 | 0.7013E-03 | |
| 6 | 24 | 5 | 20 | | 25 | 6 | 19 | 1121.5717 | | 0.1293E-03 | 4 | 21 | 6 | 21 | | 20 | 3 | 17 | 1124.9519 | 0.4198E-03 | |
| 4 | 20 | 4 | 16 | | 19 | 5 | 14 | 1121.5793 | 0.0004 | 0.4493E-02 | 4 | 28 | 4 | 24 | | 29 | 3 | 26 | 1125.0421 | 0.1078E-03 | |
| 4 | 11 | 2 | 9 | | 11 | 3 | 9 | 1121.6208 | -0.0002 | 0.5603E-01 | 4 | 18 | 2 | 18 | | 18 | 3 | 16 | 1125.1000 | -0.0003 | 0.2557E-01 |
| 6 | 24 | 5 | 19 | | 25 | 6 | 20 | 1121.7133 | | 0.1448E-03 | 6 | 11 | 9 | 3 | | 12 | 10 | 2 | 1125.2312 | 0.1215E-03 | |
| 6 | 15 | 8 | 8 | | 16 | 9 | 7 | 1121.7209 | | 0.4477E-03 | 6 | 11 | 9 | 2 | | 12 | 10 | 3 | 1125.2312 | 0.1215E-03 | |
| 6 | 15 | 8 | 7 | | 16 | 9 | 8 | 1121.7209 | | 0.4477E-03 | 8 | 28 | 4 | 23 | | 27 | 5 | 22 | 1125.2448 | 0.3773E-03 | |
| 4 | 12 | 2 | 10 | | 12 | 3 | 10 | 1121.8859 | -0.0001 | 0.5189E-01 | 4 | 18 | 0 | 18 | | 17 | 3 | 14 | 1125.3038 | 0.6572E-03 | |
| 4 | 11 | 0 | 11 | | 12 | 1 | 11 | 1122.0150 | 0.0001 | 0.3294E-01 | 4 | 6 | 1 | 5 | | 7 | 2 | 5 | 1125.3179 | -0.0001 | 0.1470E-01 |
| 4 | 24 | 0 | 24 | | 23 | 3 | 20 | 1122.0277 | | 0.1921E-03 | 4 | 26 | 6 | 20 | | 19 | 3 | 16 | 1125.3411 | 0.5073E-03 | |
| 4 | 29 | 5 | 24 | | 28 | 6 | 22 | 1122.1021 | | 0.1510E-03 | 4 | 11 | 3 | 9 | | 16 | 4 | 7 | 1125.4834 | 0.0000 | 0.4938E-02 |
| 4 | 13 | 2 | 11 | | 13 | 3 | 11 | 1122.2258 | -0.0001 | 0.4798E-01 | 4 | 19 | 6 | 19 | | 18 | 3 | 15 | 1125.4546 | 0.5895E-03 | |
| 4 | 14 | 0 | 14 | | 13 | 3 | 10 | 1122.2968 | | 0.6352E-03 | 4 | 22 | 4 | 18 | | 21 | 5 | 16 | 1125.4608 | 0.0022 | 0.2837E-02 |
| 4 | 28 | 5 | 24 | | 27 | 6 | 22 | 1122.3958 | | 0.1255E-03 | 4 | 11 | 3 | 8 | | 16 | 4 | 6 | 1125.4639 | -0.0009 | 0.4933E-02 |
| 6 | 15 | 2 | 13 | | 14 | 5 | 10 | 1122.4618 | | 0.2844E-03 | 4 | 5 | 1 | 5 | | 6 | 2 | 5 | 1125.5674 | 0.0001 | 0.1276E-01 |
| 4 | 20 | 4 | 17 | | 19 | 5 | 15 | 1122.4709 | -0.0006 | 0.5810E-02 | 6 | 16 | 2 | 14 | | 15 | 5 | 11 | 1125.7869 | 0.2744E-03 | |
| 6 | 17 | 2 | 18 | | 16 | 5 | 11 | 1122.4886 | | 0.9873E-03 | 4 | 16 | 0 | 16 | | 11 | 1 | 10 | 1125.7928 | 0.0000 | 0.3722E-01 |
| 6 | 12 | 9 | 4 | | 13 | 10 | 3 | 1122.5620 | | 0.1057E-03 | 4 | 23 | 2 | 21 | | 24 | 1 | 23 | 1125.8291 | 0.5848E-03 | |
| 6 | 12 | 9 | 3 | | 13 | 10 | 4 | 1122.5620 | | 0.1057E-03 | 4 | 19 | 2 | 17 | | 19 | 3 | 17 | 1125.8890 | -0.0002 | 0.2167E-01 |
| 6 | 27 | 4 | 24 | | 28 | 5 | 23 | 1122.5992 | | 0.2716E-03 | 4 | 29 | 5 | 25 | | 28 | 6 | 23 | 1125.9312 | 0.8298E-04 | |
| 4 | 14 | 2 | 12 | | 14 | 3 | 12 | 1122.6445 | 0.0003 | 0.4359E-01 | 6 | 26 | 4 | 22 | | 27 | 5 | 23 | 1125.9864 | 0.3888E-03 | |
| 4 | 8 | 1 | 6 | | 7 | 2 | 6 | 1122.6493 | | 0.1268E-01 | 6 | 19 | 6 | 13 | | 20 | 7 | 14 | 1126.2996 | 0.8147E-03 | |
| 4 | 26 | 2 | 24 | | 27 | 1 | 26 | 1122.7595 | | 0.1047E-03 | 4 | 15 | 1 | 15 | | 16 | 2 | 13 | 1126.3175 | -0.0003 | 0.5499E-02 |
| 4 | 10 | 3 | 8 | | 9 | 4 | 6 | 1123.0768 | -0.0002 | 0.4528E-02 | 6 | 19 | 6 | 14 | | 20 | 7 | 13 | 1126.3413 | 0.8327E-03 | |
| 4 | 7 | 1 | 6 | | 8 | 2 | 6 | 1123.1089 | 0.0005 | 0.1490E-01 | 6 | 16 | 7 | 9 | | 17 | 8 | 10 | 1126.4868 | 0.2628E-03 | |
| 4 | 10 | 3 | 7 | | 9 | 4 | 5 | 1123.1117 | -0.0023 | 0.4525E-02 | 6 | 16 | 7 | 10 | | 17 | 8 | 9 | 1126.4868 | 0.2628E-03 | |
| 4 | 15 | 2 | 13 | | 15 | 3 | 13 | 1123.1434 | -0.0003 | 0.3898E-01 | 6 | 22 | 1 | 22 | | 23 | 2 | 21 | 1126.6591 | 0.1022E-03 | |
| 4 | 24 | 3 | 21 | | 25 | 2 | 23 | 1123.1840 | | 0.1690E-03 | 4 | 26 | 2 | 18 | | 20 | 3 | 18 | 1126.7345 | -0.0003 | 0.1815E-01 |
| 4 | 23 | 0 | 23 | | 22 | 3 | 19 | 1123.3041 | | 0.2579E-03 | 6 | 19 | 2 | 18 | | 18 | 5 | 13 | 1126.8322 | 0.1247E-02 | |
| 4 | 15 | 0 | 15 | | 14 | 3 | 11 | 1123.3842 | | 0.6919E-03 | 6 | 22 | 5 | 18 | | 23 | 6 | 17 | 1126.8394 | 0.2482E-03 | |
| 4 | 21 | 4 | 17 | | 20 | 5 | 15 | 1123.5513 | 0.0008 | 0.3627E-02 | 6 | 22 | 5 | 17 | | 23 | 6 | 18 | 1126.8563 | 0.2488E-03 | |
| 6 | 27 | 4 | 23 | | 28 | 5 | 24 | 1123.5846 | | 0.2826E-03 | 4 | 22 | 4 | 19 | | 21 | 5 | 17 | 1126.9073 | -0.0005 | 0.4087E-02 |
| 4 | 25 | 2 | 23 | | 26 | 1 | 25 | 1123.6252 | -0.0004 | 0.2007E-03 | 6 | 13 | 8 | 5 | | 14 | 9 | 6 | 1126.9803 | 0.6194E-03 | |
| 6 | 20 | 6 | 14 | | 21 | 7 | 15 | 1123.8932 | | 0.6510E-03 | 6 | 13 | 8 | 6 | | 14 | 9 | 5 | 1126.9803 | 0.6194E-03 | |
| 4 | 16 | 2 | 14 | | 16 | 3 | 14 | 1123.7214 | -0.0003 | 0.3432E-01 | 4 | 23 | 3 | 20 | | 24 | 2 | 22 | 1127.0974 | 0.2033E-03 | |
| 4 | 16 | 1 | 16 | | 16 | 2 | 14 | 1123.7319 | -0.0004 | 0.4245E-02 | 4 | 22 | 2 | 20 | | 23 | 1 | 22 | 1127.1859 | 0.0001 | 0.9155E-03 |
| 6 | 20 | 6 | 15 | | 21 | 7 | 14 | 1123.7452 | | 0.6658E-03 | 4 | 23 | 4 | 19 | | 22 | 5 | 17 | 1127.2975 | 0.0022 | 0.2146E-02 |
| 6 | 17 | 7 | 10 | | 18 | 8 | 11 | 1123.8813 | | 0.2175E-03 | 4 | 5 | 1 | 4 | | 6 | 2 | 4 | 1127.5208 | -0.0001 | 0.1425E-01 |
| 6 | 17 | 7 | 11 | | 18 | 8 | 10 | 1123.8813 | | 0.2175E-03 | 4 | 21 | 2 | 19 | | 21 | 3 | 19 | 1127.8278 | -0.0003 | 0.1504E-01 |
| 6 | 23 | 5 | 19 | | 24 | 6 | 18 | 1124.2500 | | 0.1894E-03 | 4 | 12 | 3 | 10 | | 11 | 4 | 8 | 1127.7178 | 0.0006 | 0.5174E-02 |
| 4 | 16 | 0 | 18 | | 15 | 3 | 12 | 1124.2563 | | 0.7142E-03 | 4 | 12 | 3 | 9 | | 11 | 4 | 7 | 1127.8177 | 0.0000 | 0.5166E-02 |
| 4 | 22 | 0 | 22 | | 21 | 3 | 18 | 1124.2761 | | 0.3348E-03 | 6 | 25 | 4 | 22 | | 26 | 5 | 21 | 1127.8656 | 0.6188E-03 | |
| 6 | 23 | 5 | 18 | | 24 | 6 | 19 | 1124.2861 | | 0.1910E-03 | 6 | 10 | 9 | 1 | | 11 | 10 | 2 | 1127.8824 | 0.1383E-03 | |
| 6 | 14 | 8 | 8 | | 15 | 9 | 7 | 1124.3568 | | 0.5295E-03 | 6 | 10 | 9 | 2 | | 11 | 10 | 1 | 1127.8824 | 0.1383E-03 | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | | | | | | | |
|---|----|----|----|----|---|----|-----------|------------|----------|----------|---|----|----|----|----|-----------|-------------|---------|-----------|----------|----------|----|----|----|-----------|------------|------------|------------|
| 6 | 27 | 3 | 25 | 28 | 4 | 24 | 1128.9804 | 8.8167E-94 | 6 | 28 | 2 | 25 | 26 | 5 | 20 | 1132.2489 | 6.7421E-03 | 6 | 27 | 3 | 25 | 28 | 4 | 24 | 1128.3979 | 8.5268E-03 | 6.0047 | |
| 6 | 25 | 4 | 21 | 28 | 5 | 22 | 1128.4039 | 8.8000 | 6 | 14 | 3 | 12 | 13 | 4 | 10 | 1132.3021 | 6.5167E-02 | 6 | 24 | 1 | 4 | 21 | 28 | 5 | 22 | 1128.4039 | 8.6280E-02 | 6.0008 |
| 4 | 24 | 1 | 4 | 25 | 2 | 4 | 1128.5588 | -8.6002 | 6 | 19 | 2 | 17 | 20 | 1 | 19 | 1132.3074 | -8.2690E-02 | 6 | 22 | 2 | 20 | 22 | 3 | 28 | 1128.5588 | -8.6002 | 6.0004 | |
| 4 | 22 | 2 | 20 | 22 | 3 | 28 | 1128.6553 | 8.6002 | 6 | 14 | 1 | 14 | 14 | 2 | 12 | 1132.4388 | 6.5018E-02 | 6 | 21 | 1 | 14 | 21 | 22 | 1 | 21 | 1128.6553 | 8.6002 | 6.5145E-02 |
| 4 | 21 | 2 | 19 | 22 | 1 | 21 | 1128.7185 | 8.6002 | 6 | 14 | 3 | 11 | 13 | 4 | 9 | 1132.5433 | 6.1040E-01 | 6 | 20 | 1 | 14 | 21 | 22 | 1 | 21 | 1128.7185 | 8.6002 | 6.1040E-01 |
| 4 | 19 | 6 | 12 | 19 | 7 | 13 | 1128.8969 | 8.6002 | 6 | 12 | 1 | 12 | 12 | 2 | 10 | 1132.8045 | 6.2628E-03 | 6 | 18 | 6 | 13 | 19 | 7 | 12 | 1128.8969 | 8.6002 | 6.4437E-01 | |
| 4 | 18 | 6 | 13 | 19 | 7 | 12 | 1128.9365 | 8.6002 | 6 | 8 | 6 | 8 | 8 | 9 | 18 | 1132.9084 | -8.6001 | 6 | 20 | 2 | 19 | 19 | 5 | 14 | 1128.9365 | 8.6002 | 6.9292E-03 | |
| 6 | 17 | 2 | 19 | 23 | 5 | 18 | 1129.0498 | 8.6002 | 6 | 23 | 4 | 26 | 24 | 5 | 19 | 1133.0560 | 8.1422E-02 | 6 | 24 | 2 | 23 | 23 | 5 | 18 | 1129.0498 | 8.6002 | 6.1422E-02 | |
| 6 | 15 | 7 | 8 | 18 | 8 | 9 | 1129.0835 | 8.6002 | 6 | 5 | 2 | 4 | 4 | 5 | 2 | 1133.2302 | 8.0003 | 6 | 15 | 6 | 6 | 6 | 6 | 6 | 8 | 1129.0835 | 8.6002 | 8.8521E-02 |
| 4 | 23 | 4 | 20 | 22 | 5 | 19 | 1129.1053 | -8.6002 | 6 | 23 | 4 | 19 | 24 | 5 | 20 | 1133.3094 | 8.0001 | 6 | 23 | 4 | 20 | 22 | 5 | 19 | 1129.1053 | 8.6002 | 8.8521E-02 | |
| 4 | 17 | 2 | 15 | 18 | 5 | 12 | 1129.2250 | 8.6002 | 6 | 27 | 2 | 25 | 27 | 3 | 25 | 1133.3835 | -8.0005 | 6 | 17 | 3 | 15 | 18 | 7 | 12 | 1129.2250 | 8.6002 | 8.9404E-03 | |
| 4 | 27 | 4 | 23 | 28 | 3 | 25 | 1129.2971 | 8.6002 | 6 | 25 | 4 | 22 | 24 | 5 | 20 | 1133.4460 | -8.0006 | 6 | 27 | 4 | 23 | 28 | 3 | 25 | 1129.2971 | 8.6002 | 8.9404E-03 | |
| 4 | 21 | 5 | 17 | 22 | 6 | 18 | 1129.4139 | 8.6001 | 6 | 28 | 4 | 22 | 27 | 3 | 24 | 1133.5020 | 8.0001 | 6 | 21 | 5 | 17 | 22 | 6 | 18 | 1129.4139 | 8.6001 | 8.0001 | |
| 4 | 21 | 5 | 18 | 22 | 6 | 17 | 1129.4230 | -8.0003 | 6 | 23 | 3 | 21 | 23 | 5 | 21 | 1133.6656 | 8.0000 | 6 | 23 | 2 | 21 | 23 | 3 | 21 | 1129.4230 | 8.0003 | 8.0000 | |
| 4 | 12 | 8 | 4 | 13 | 9 | 5 | 1129.5913 | 8.7169E-03 | 6 | 18 | 6 | 19 | 17 | 7 | 11 | 1134.0627 | 8.0000 | 6 | 12 | 8 | 4 | 13 | 9 | 5 | 1129.5913 | 8.7169E-03 | 8.0000 | |
| 4 | 12 | 8 | 5 | 13 | 9 | 4 | 1129.5913 | 8.7169E-03 | 6 | 18 | 6 | 11 | 17 | 7 | 10 | 1134.0885 | 8.0000 | 6 | 12 | 8 | 5 | 13 | 9 | 4 | 1129.5913 | 8.7169E-03 | 8.0000 | |
| 4 | 30 | 3 | 27 | 29 | 6 | 24 | 1129.6893 | -8.0001 | 6 | 11 | 1 | 11 | 11 | 2 | 9 | 1134.2327 | 8.0000 | 6 | 30 | 3 | 27 | 29 | 6 | 24 | 1129.6893 | -8.0001 | 8.0000 | |
| 4 | 14 | 1 | 3 | 5 | 2 | 3 | 1129.7338 | 8.0000 | 6 | 13 | 7 | 1 | 1 | 3 | 2 | 1 | 1134.2446 | -8.0001 | 6 | 13 | 3 | 11 | 12 | 4 | 9 | 1129.7338 | 8.0000 | 8.0001 |
| 4 | 13 | 3 | 11 | 12 | 4 | 9 | 1130.0181 | 8.0000 | 6 | 13 | 7 | 1 | 1 | 3 | 2 | 1 | 1134.2446 | -8.0001 | 6 | 13 | 3 | 10 | 12 | 4 | 8 | 1130.0181 | 8.0000 | 8.0001 |
| 4 | 13 | 3 | 10 | 12 | 4 | 8 | 1130.1784 | -8.0001 | 6 | 13 | 7 | 7 | 14 | 8 | 7 | 1134.2488 | -8.0002 | 6 | 13 | 3 | 10 | 12 | 4 | 8 | 1130.1784 | -8.0001 | -8.0002 | |
| 4 | 28 | 2 | 18 | 21 | 1 | 26 | 1130.4268 | 8.0000 | 6 | 28 | 2 | 28 | 28 | 3 | 28 | 1134.2468 | -8.0002 | 6 | 28 | 2 | 18 | 21 | 1 | 26 | 1130.4268 | 8.0000 | -8.0002 | |
| 4 | 24 | 4 | 21 | 25 | 6 | 29 | 1130.4919 | -8.0007 | 6 | 18 | 2 | 16 | 19 | 1 | 18 | 1134.3548 | -8.0002 | 6 | 24 | 4 | 21 | 25 | 6 | 29 | 1130.4919 | -8.0007 | -8.0002 | |
| 4 | 24 | 4 | 22 | 24 | 3 | 22 | 1130.5149 | -8.0007 | 6 | 19 | 5 | 15 | 20 | 6 | 14 | 1134.5417 | 8.0000 | 6 | 24 | 4 | 22 | 24 | 3 | 22 | 1130.5149 | -8.0007 | 8.0000 | |
| 4 | 25 | 6 | 24 | 24 | 5 | 19 | 1130.7039 | -8.0001 | 6 | 25 | 3 | 23 | 28 | 4 | 22 | 1134.7098 | -8.0002 | 6 | 25 | 6 | 24 | 24 | 5 | 19 | 1130.7039 | -8.0001 | -8.0002 | |
| 4 | 13 | 1 | 13 | 13 | 2 | 11 | 1130.7487 | -8.0001 | 6 | 19 | 8 | 2 | 11 | 9 | 3 | 1134.7738 | -8.0002 | 6 | 13 | 1 | 13 | 13 | 2 | 11 | 1130.7487 | -8.0001 | -8.0002 | |
| 4 | 24 | 4 | 20 | 25 | 6 | 21 | 1130.8533 | -8.0004 | 6 | 10 | 8 | 3 | 11 | 9 | 2 | 1134.9222 | 8.0006 | 6 | 24 | 4 | 20 | 25 | 6 | 21 | 1130.8533 | -8.0004 | 8.0006 | |
| 4 | 4 | 2 | 3 | 3 | 3 | 1 | 1130.8654 | -8.0004 | 6 | 15 | 3 | 12 | 14 | 4 | 10 | 1134.9479 | -8.0002 | 6 | 4 | 2 | 3 | 3 | 3 | 1 | 1130.8654 | -8.0004 | -8.0002 | |
| 4 | 21 | 3 | 18 | 22 | 2 | 26 | 1131.0446 | 8.0004 | 6 | 28 | 2 | 27 | 27 | 5 | 22 | 1134.9479 | -8.0002 | 6 | 21 | 3 | 18 | 22 | 2 | 26 | 1131.0446 | 8.0004 | -8.0002 | |
| 4 | 17 | 6 | 11 | 18 | 7 | 12 | 1131.1588 | 8.0002 | 6 | 29 | 2 | 27 | 29 | 3 | 27 | 1135.1398 | 8.0011 | 6 | 17 | 6 | 11 | 18 | 7 | 12 | 1131.1588 | 8.0002 | 8.0011 | |
| 4 | 24 | 4 | 21 | 23 | 5 | 19 | 1131.2864 | -8.0011 | 6 | 23 | 2 | 22 | 22 | 5 | 17 | 1135.2393 | 8.0000 | 6 | 24 | 4 | 21 | 23 | 5 | 19 | 1131.2864 | -8.0011 | 8.0000 | |
| 4 | 28 | 3 | 24 | 27 | 4 | 23 | 1131.4579 | -8.0004 | 6 | 18 | 3 | 14 | 17 | 7 | 11 | 1135.5833 | 8.0000 | 6 | 28 | 3 | 24 | 27 | 4 | 23 | 1131.4579 | -8.0004 | 8.0000 | |
| 4 | 25 | 2 | 23 | 26 | 3 | 23 | 1131.4702 | -8.0004 | 6 | 28 | 2 | 27 | 27 | 5 | 22 | 1135.5748 | 8.0000 | 6 | 25 | 2 | 23 | 26 | 3 | 23 | 1131.4702 | -8.0004 | 8.0000 | |
| 4 | 17 | 6 | 12 | 18 | 7 | 11 | 1131.5125 | 8.0002 | 6 | 22 | 4 | 19 | 23 | 5 | 18 | 1135.6202 | 8.0000 | 6 | 17 | 6 | 12 | 18 | 7 | 11 | 1131.5125 | 8.0002 | 8.0000 | |
| 4 | 14 | 7 | 7 | 15 | 8 | 8 | 1131.6709 | -8.0011 | 6 | 18 | 1 | 19 | 16 | 2 | 8 | 1135.6460 | 8.0000 | 6 | 14 | 7 | 7 | 15 | 8 | 8 | 1131.6709 | -8.0011 | 8.0000 | |
| 4 | 14 | 7 | 8 | 15 | 8 | 7 | 1131.6709 | -8.0011 | 6 | 27 | 3 | 24 | 28 | 4 | 25 | 1135.7725 | 8.0000 | 6 | 14 | 7 | 8 | 15 | 8 | 7 | 1131.6709 | -8.0011 | 8.0000 | |
| 4 | 22 | 3 | 19 | 23 | 2 | 21 | 1131.8002 | 8.0001 | 6 | 22 | 4 | 18 | 23 | 5 | 19 | 1135.8158 | 8.0001 | 6 | 22 | 3 | 19 | 23 | 2 | 21 | 1131.8002 | 8.0001 | 8.0001 | |
| 4 | 3 | 1 | 2 | 4 | 2 | 3 | 1131.9709 | 8.0001 | 6 | 30 | 2 | 28 | 30 | 3 | 28 | 1135.9185 | 8.0001 | 6 | 3 | 1 | 2 | 4 | 2 | 3 | 1131.9709 | 8.0001 | 8.0001 | |
| 4 | 20 | 5 | 18 | 21 | 6 | 15 | 1131.9868 | 8.0001 | 6 | 29 | 2 | 28 | 28 | 5 | 23 | 1136.0828 | 8.0001 | 6 | 20 | 5 | 18 | 21 | 6 | 15 | 1131.9868 | 8.0001 | 8.0001 | |
| 4 | 11 | 8 | 4 | 12 | 9 | 3 | 1132.1892 | 8.0001 | 6 | 19 | 2 | 17 | 18 | 5 | 14 | 1136.4203 | 8.0001 | 6 | 11 | 8 | 4 | 12 | 9 | 3 | 1132.1892 | 8.0001 | 8.0001 | |
| 4 | 6 | 6 | 6 | 6 | 6 | 6 | 1132.1892 | 8.0001 | 6 | 19 | 2 | 17 | 18 | 5 | 14 | 1136.4203 | 8.0001 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 1132.1892 | 8.0001 | 8.0001 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 4 | 17 | 2 | 15 | | 18 | 1 | 17 | 1136.5603 | 0.0019 | 0.4549E-02 | 4 | 8 | 2 | 6 | | 7 | 3 | 4 | 1140.6523 | -0.0001 | 0.1725E-01 |
| 4 | 1 | 1 | 0 | | 2 | 2 | 0 | 1136.5641 | -0.0019 | 0.1100E-01 | 6 | 20 | 4 | 17 | | 21 | 5 | 16 | 1140.7288 | 0.0005 | 0.2019E-02 |
| 6 | 15 | 6 | 9 | | 18 | 7 | 10 | 1136.6294 | | 0.1721E-02 | 6 | 20 | 4 | 16 | | 21 | 5 | 17 | 1140.8210 | | 0.2027E-02 |
| 6 | 15 | 8 | 10 | | 18 | 7 | 9 | 1136.6516 | | 0.1782E-02 | 4 | 3 | 1 | 3 | | 3 | 2 | 1 | 1140.8818 | 0.0002 | 0.1010E-01 |
| 4 | 18 | 3 | 14 | | 15 | 4 | 12 | 1136.8086 | -0.0004 | 0.4659E-02 | 6 | 23 | 3 | 21 | | 24 | 4 | 20 | 1140.8853 | | 0.3612E-03 |
| 6 | 12 | 7 | 6 | | 13 | 8 | 5 | 1136.8169 | | 0.4997E-03 | 4 | 2 | 1 | 2 | | 2 | 2 | 0 | 1141.1178 | 0.0001 | 0.6096E-02 |
| 6 | 12 | 7 | 5 | | 13 | 8 | 6 | 1136.8169 | | 0.4997E-03 | 4 | 18 | 3 | 16 | | 17 | 4 | 14 | 1141.2073 | 0.0003 | 0.3859E-02 |
| 4 | 9 | 1 | 9 | | 9 | 2 | 7 | 1136.8695 | 0.0000 | 0.1524E-01 | 4 | 15 | 2 | 13 | | 16 | 1 | 15 | 1141.4065 | 0.0000 | 0.6683E-02 |
| 6 | 30 | 2 | 29 | | 29 | 5 | 24 | 1137.0610 | | 0.1019E-03 | 4 | 26 | 4 | 22 | | 25 | 5 | 20 | 1141.5219 | | 0.1129E-02 |
| 8 | 18 | 5 | 14 | | 19 | 6 | 13 | 1137.0969 | | 0.8317E-03 | 4 | 2 | 1 | 1 | | 2 | 2 | 1 | 1141.5439 | -0.0001 | 0.6247E-02 |
| 6 | 18 | 6 | 13 | | 19 | 6 | 14 | 1137.0985 | | 0.6318E-03 | 4 | 24 | 4 | 20 | | 25 | 3 | 22 | 1141.6864 | | 0.6372E-03 |
| 6 | 21 | 1 | 21 | | 22 | 2 | 20 | 1137.3083 | | 0.2074E-03 | 4 | 22 | 4 | 18 | | 23 | 3 | 20 | 1141.6815 | | 0.5437E-04 |
| 4 | 18 | 3 | 13 | | 15 | 4 | 11 | 1137.3164 | 0.0002 | 0.4610E-02 | 6 | 13 | 6 | 7 | | 14 | 7 | 8 | 1141.7002 | | 0.1837E-02 |
| 4 | 24 | 4 | 20 | | 23 | 5 | 18 | 1137.3177 | | 0.1346E-02 | 4 | 3 | 1 | 2 | | 3 | 2 | 2 | 1141.7212 | 0.0002 | 0.1061E-01 |
| 6 | 9 | 8 | 1 | | 10 | 9 | 2 | 1137.3447 | | 0.1048E-02 | 6 | 13 | 6 | 8 | | 14 | 7 | 7 | 1141.7397 | | 0.2210E-02 |
| 6 | 9 | 8 | 2 | | 10 | 9 | 1 | 1137.3447 | | 0.1048E-02 | 4 | 29 | 4 | 28 | | 28 | 5 | 24 | 1141.8109 | | 0.8180E-03 |
| 4 | 25 | 4 | 21 | | 28 | 3 | 23 | 1137.6322 | | 0.4126E-03 | 6 | 10 | 7 | 4 | | 11 | 8 | 3 | 1141.9228 | | 0.8454E-03 |
| 4 | 27 | 4 | 24 | | 28 | 5 | 22 | 1137.6942 | | 0.1397E-02 | 6 | 10 | 7 | 3 | | 11 | 8 | 4 | 1141.9228 | | 0.6454E-03 |
| 3 | 15 | 3 | 13 | | 18 | 7 | 10 | 1137.7020 | | 0.1189E-03 | 4 | 4 | 1 | 3 | | 4 | 2 | 3 | 1141.9565 | 0.0001 | 0.1416E-01 |
| 8 | 24 | 3 | 22 | | 25 | 4 | 21 | 1137.8483 | | 0.2572E-03 | 3 | 13 | 3 | 11 | | 14 | 7 | 8 | 1142.0778 | | 0.6909E-03 |
| 4 | 8 | 1 | 8 | | 8 | 2 | 6 | 1137.8896 | 0.0008 | 0.1819E-01 | 4 | 18 | 3 | 15 | | 17 | 4 | 13 | 1142.1541 | 0.0002 | 0.3749E-02 |
| 4 | 7 | 2 | 6 | | 8 | 3 | 4 | 1137.8950 | -0.0046 | 0.1403E-01 | 6 | 18 | 5 | 12 | | 17 | 6 | 11 | 1142.1906 | 0.0008 | 0.9334E-03 |
| 6 | 28 | 3 | 23 | | 27 | 4 | 24 | 1137.9958 | | 0.1245E-03 | 6 | 16 | 5 | 11 | | 17 | 6 | 12 | 1142.1918 | | 0.9334E-03 |
| 3 | 15 | 3 | 12 | | 18 | 7 | 9 | 1138.1536 | | 0.5778E-04 | 3 | 13 | 3 | 10 | | 14 | 7 | 7 | 1142.2458 | | 0.3177E-03 |
| 4 | 7 | 2 | 5 | | 6 | 3 | 3 | 1138.1772 | 0.0003 | 0.1405E-01 | 4 | 5 | 1 | 4 | | 5 | 2 | 4 | 1142.2491 | -0.0001 | 0.1708E-01 |
| 6 | 21 | 4 | 18 | | 22 | 5 | 17 | 1138.1792 | | 0.1580E-02 | 6 | 24 | 3 | 21 | | 25 | 4 | 22 | 1142.3498 | | 0.2744E-03 |
| 6 | 21 | 4 | 17 | | 22 | 5 | 18 | 1138.3148 | -0.0004 | 0.1590E-02 | 4 | 18 | 3 | 15 | | 19 | 2 | 17 | 1142.3761 | | 0.4121E-03 |
| 4 | 19 | 3 | 16 | | 20 | 2 | 18 | 1138.7144 | 0.0007 | 0.3481E-03 | 4 | 9 | 2 | 8 | | 8 | 3 | 6 | 1142.4429 | 0.0002 | 0.1973E-01 |
| 4 | 7 | 1 | 7 | | 7 | 2 | 5 | 1138.7532 | 0.0001 | 0.1855E-01 | 4 | 5 | 0 | 5 | | 6 | 1 | 5 | 1142.5881 | 0.0002 | 0.4706E-01 |
| 4 | 16 | 2 | 14 | | 17 | 1 | 18 | 1138.9147 | -0.0001 | 0.5610E-02 | 4 | 6 | 1 | 5 | | 6 | 2 | 5 | 1142.5977 | 0.0000 | 0.1941E-01 |
| 4 | 17 | 3 | 15 | | 18 | 4 | 13 | 1139.0237 | 0.0002 | 0.4283E-02 | 4 | 29 | 5 | 25 | | 30 | 4 | 27 | 1142.8104 | | 0.6670E-04 |
| 6 | 14 | 6 | 8 | | 15 | 7 | 9 | 1139.1810 | | 0.1935E-02 | 4 | 7 | 1 | 6 | | 7 | 2 | 6 | 1143.0006 | 0.0003 | 0.2117E-01 |
| 6 | 14 | 6 | 9 | | 15 | 7 | 8 | 1139.2054 | | 0.2057E-02 | 6 | 26 | 1 | 20 | | 21 | 2 | 19 | 1143.1444 | | 0.2443E-03 |
| 6 | 11 | 7 | 5 | | 12 | 8 | 4 | 1139.3749 | | 0.5708E-03 | 4 | 9 | 2 | 7 | | 8 | 3 | 5 | 1143.1667 | 0.0001 | 0.1984E-01 |
| 6 | 11 | 7 | 4 | | 12 | 8 | 5 | 1139.3749 | | 0.5708E-03 | 6 | 19 | 4 | 16 | | 20 | 5 | 15 | 1143.2706 | 0.0002 | 0.2644E-02 |
| 4 | 25 | 4 | 21 | | 24 | 5 | 19 | 1139.4076 | | 0.1252E-02 | 6 | 19 | 4 | 15 | | 20 | 5 | 16 | 1143.3322 | | 0.2551E-02 |
| 4 | 6 | 1 | 8 | | 6 | 2 | 4 | 1139.4673 | 0.0002 | 0.1820E-01 | 4 | 19 | 3 | 17 | | 18 | 4 | 15 | 1143.3542 | 0.0003 | 0.3413E-02 |
| 4 | 6 | 0 | 6 | | 7 | 1 | 6 | 1139.4833 | 0.0000 | 0.4761E-01 | 4 | 29 | 1 | 28 | | 30 | 0 | 30 | 1143.4196 | | 0.5893E-04 |
| 6 | 17 | 5 | 13 | | 18 | 6 | 12 | 1139.6465 | | 0.7727E-03 | 4 | 8 | 1 | 7 | | 8 | 2 | 7 | 1143.4559 | 0.0001 | 0.2236E-01 |
| 6 | 17 | 5 | 12 | | 18 | 6 | 13 | 1139.6475 | | 0.7728E-03 | 4 | 27 | 4 | 23 | | 26 | 5 | 21 | 1143.6747 | | 0.9852E-03 |
| 4 | 17 | 3 | 14 | | 16 | 4 | 12 | 1139.7277 | 0.0009 | 0.4209E-02 | 4 | 30 | 4 | 27 | | 29 | 5 | 25 | 1143.8073 | | 0.6124E-03 |
| 4 | 28 | 4 | 25 | | 27 | 5 | 23 | 1139.7712 | | 0.1077E-02 | 6 | 22 | 3 | 20 | | 23 | 4 | 19 | 1143.8318 | | 0.4972E-03 |
| 3 | 14 | 3 | 12 | | 15 | 7 | 9 | 1139.8672 | | 0.2338E-03 | 4 | 28 | 1 | 27 | | 29 | 0 | 29 | 1143.8347 | | 0.5562E-04 |
| 6 | 8 | 8 | 0 | | 9 | 9 | 1 | 1139.9019 | | 0.1170E-02 | 4 | 9 | 1 | 8 | | 9 | 2 | 8 | 1143.9611 | 0.0002 | 0.2301E-01 |
| 6 | 8 | 8 | 1 | | 9 | 9 | 0 | 1139.9019 | | 0.1170E-02 | 6 | 21 | 2 | 19 | | 20 | 5 | 16 | 1143.9860 | | 0.1994E-03 |
| 4 | 5 | 1 | 5 | | 5 | 2 | 3 | 1140.0475 | 0.0001 | 0.1505E-01 | 4 | 14 | 2 | 12 | | 15 | 1 | 14 | 1144.0229 | 0.0000 | 0.7697E-02 |
| 3 | 14 | 3 | 11 | | 15 | 7 | 8 | 1140.1615 | | 0.1123E-03 | 3 | 12 | 3 | 10 | | 13 | 7 | 7 | 1144.1064 | | 0.6706E-03 |
| 6 | 26 | 2 | 18 | | 19 | 5 | 15 | 1140.1620 | | 0.2236E-03 | 3 | 12 | 3 | 9 | | 13 | 7 | 8 | 1144.1951 | | 0.1257E-02 |
| 6 | 25 | 3 | 22 | | 26 | 4 | 23 | 1140.1804 | | 0.1882E-03 | 4 | 28 | 5 | 24 | | 29 | 4 | 26 | 1144.3601 | | 0.8248E-04 |
| 4 | 8 | 2 | 7 | | 7 | 3 | 5 | 1140.1862 | 0.0000 | 0.1719E-01 | 6 | 12 | 6 | 6 | | 13 | 7 | 7 | 1144.4149 | 0.0007 | 0.2241E-02 |
| 4 | 4 | 1 | 4 | | 4 | 2 | 2 | 1140.5082 | 0.0002 | 0.1303E-01 | 6 | 12 | 6 | 7 | | 13 | 7 | 6 | 1144.4569 | 0.1655E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 9 | 7 | 3 | 10 | 8 | 2 | | 1144.4598 | | 0.7229E-03 | 4 | 25 | 5 | 26 | 26 | 4 | 22 | 1148.3286 | | 0.6499E-04 | |
| 6 | 9 | 7 | 2 | 10 | 8 | 3 | | 1144.4598 | | 0.7229E-03 | 6 | 17 | 4 | 14 | 18 | 5 | 13 | 1148.3347 | 0.0004 | 0.3882E-02 | |
| 4 | 10 | 1 | 9 | 10 | 2 | 9 | | 1144.5128 | 0.0001 | 0.2318E-01 | 4 | 11 | 2 | 9 | 10 | 3 | 7 | 1148.3451 | 0.0001 | 0.2301E-01 | |
| 6 | 23 | 3 | 26 | 24 | 4 | 21 | | 1144.5254 | | 0.3875E-03 | 6 | 17 | 4 | 13 | 18 | 5 | 14 | 1148.3601 | -0.0001 | 0.3886E-02 | |
| 4 | 19 | 3 | 16 | 18 | 4 | 14 | | 1144.5833 | 0.0006 | 0.3243E-02 | 4 | 3 | 0 | 3 | 4 | 1 | 3 | 1148.4703 | 0.0001 | 0.4086E-01 | |
| 4 | 10 | 2 | 9 | 9 | 3 | 7 | | 1144.8598 | -0.0001 | 0.2157E-01 | 4 | 16 | 1 | 15 | 16 | 2 | 15 | 1148.5083 | 0.0002 | 0.1879E-01 | |
| 6 | 15 | 5 | 11 | 16 | 6 | 10 | | 1144.7288 | 0.0006 | 0.1113E-02 | 4 | 25 | 2 | 24 | 26 | 1 | 26 | 1148.5518 | 0.0002 | 0.1809E-03 | |
| 6 | 15 | 5 | 10 | 16 | 6 | 11 | | 1144.7290 | 0.0003 | 0.1113E-02 | 4 | 13 | 1 | 12 | 14 | 0 | 14 | 1148.5529 | -0.0005 | 0.2057E-02 | |
| 4 | 11 | 1 | 10 | 11 | 2 | 16 | | 1145.1071 | 0.0001 | 0.2288E-01 | 4 | 12 | 2 | 11 | 11 | 3 | 9 | 1148.9498 | -0.0001 | 0.2311E-01 | |
| 4 | 29 | 2 | 28 | 30 | 1 | 30 | | 1145.3899 | | 0.2264E-03 | 6 | 21 | 3 | 18 | 22 | 4 | 19 | 1148.9564 | | 0.7130E-03 | |
| 4 | 20 | 3 | 18 | 19 | 4 | 16 | | 1145.4586 | 0.0000 | 0.2984E-02 | 6 | 19 | 1 | 19 | 20 | 2 | 18 | 1148.9862 | | 0.3293E-03 | |
| 4 | 19 | 1 | 18 | 20 | 0 | 20 | | 1145.4837 | | 0.1087E-03 | 4 | 3 | 1 | 2 | 2 | 2 | 0 | 1149.0063 | | 0.1332E-02 | |
| 4 | 21 | 4 | 17 | 22 | 3 | 19 | | 1145.5218 | | 0.6095E-04 | 4 | 20 | 4 | 16 | 21 | 3 | 18 | 1149.1808 | | 0.6225E-04 | |
| 4 | 4 | 0 | 4 | 5 | 1 | 4 | | 1145.5815 | 0.0003 | 0.4484E-01 | 4 | 17 | 1 | 16 | 17 | 2 | 16 | 1149.2166 | 0.0001 | 0.1512E-01 | |
| 6 | 23 | 2 | 22 | 24 | 3 | 21 | | 1145.5869 | | 0.9884E-03 | 4 | 21 | 3 | 18 | 20 | 4 | 16 | 1149.2275 | | 0.2025E-02 | |
| 4 | 18 | 1 | 17 | 19 | 0 | 19 | | 1145.7076 | | 0.2216E-03 | 4 | 24 | 2 | 23 | 25 | 1 | 25 | 1149.3390 | | 0.1440E-03 | |
| 4 | 10 | 2 | 8 | 9 | 3 | 6 | | 1145.7288 | 0.0002 | 0.2177E-01 | 6 | 22 | 2 | 21 | 23 | 3 | 20 | 1149.3810 | | 0.1442E-02 | |
| 4 | 12 | 1 | 11 | 12 | 2 | 11 | | 1145.7390 | 0.0002 | 0.2216E-01 | 6 | 10 | 6 | 4 | 11 | 7 | 5 | 1149.4069 | | 0.3704E-02 | |
| 6 | 18 | 4 | 15 | 19 | 5 | 14 | | 1145.8057 | 0.0005 | 0.3164E-02 | 6 | 10 | 6 | 5 | 11 | 7 | 4 | 1149.4072 | | 0.3700E-02 | |
| 6 | 18 | 4 | 14 | 19 | 5 | 15 | | 1145.8457 | 0.0001 | 0.3170E-02 | 6 | 20 | 3 | 18 | 21 | 4 | 17 | 1149.4973 | | 0.8886E-03 | |
| 4 | 28 | 4 | 24 | 27 | 5 | 22 | | 1145.8795 | | 0.8334E-03 | 6 | 7 | 7 | 1 | 8 | 8 | 0 | 1149.5020 | | 0.8858E-03 | |
| 4 | 17 | 3 | 14 | 18 | 2 | 18 | | 1145.9752 | | 0.4752E-03 | 6 | 7 | 7 | 0 | 8 | 8 | 1 | 1149.5020 | | 0.8858E-03 | |
| 4 | 17 | 1 | 16 | 18 | 0 | 18 | | 1146.0369 | | 0.3977E-03 | 4 | 18 | 3 | 13 | 17 | 2 | 15 | 1149.5103 | | 0.5360E-03 | |
| 4 | 27 | 5 | 23 | 28 | 4 | 25 | | 1146.1167 | | 0.9874E-04 | 4 | 22 | 3 | 20 | 21 | 4 | 18 | 1149.5149 | | 0.2123E-02 | |
| 4 | 28 | 2 | 27 | 29 | 1 | 29 | | 1146.1899 | | 0.2303E-03 | 4 | 12 | 1 | 11 | 13 | 0 | 13 | 1149.5431 | 0.0002 | 0.2753E-02 | |
| 3 | 11 | 3 | 9 | 12 | 7 | 6 | | 1146.3832 | | 0.1243E-03 | 4 | 12 | 2 | 10 | 13 | 1 | 12 | 1149.5710 | -0.0001 | 0.9242E-02 | |
| 4 | 13 | 1 | 12 | 13 | 2 | 12 | | 1146.4028 | 0.0001 | 0.2114E-01 | 6 | 13 | 5 | 9 | 14 | 6 | 8 | 1149.7874 | 0.0003 | 0.1526E-02 | |
| 3 | 11 | 3 | 8 | 12 | 7 | 5 | | 1146.4586 | | 0.1704E-03 | 6 | 13 | 5 | 8 | 14 | 8 | 9 | 1149.7874 | 0.0002 | 0.1526E-02 | |
| 4 | 18 | 1 | 15 | 17 | 0 | 17 | | 1146.4705 | 0.0002 | 0.6543E-03 | 4 | 18 | 1 | 17 | 18 | 2 | 17 | 1149.9094 | 0.0006 | 0.1343E-01 | |
| 6 | 21 | 3 | 19 | 22 | 4 | 18 | | 1146.6992 | | 0.6710E-03 | 4 | 23 | 2 | 22 | 24 | 1 | 24 | 1150.1414 | | 0.1007E-03 | |
| 6 | 22 | 3 | 19 | 23 | 4 | 20 | | 1146.7242 | | 0.5320E-03 | 4 | 25 | 5 | 21 | 26 | 4 | 23 | 1150.1779 | | 0.1302E-03 | |
| 4 | 13 | 2 | 11 | 14 | 1 | 13 | | 1146.7498 | 0.0000 | 0.8574E-02 | 4 | 19 | 3 | 17 | 20 | 2 | 19 | 1150.2290 | | 0.7031E-04 | |
| 4 | 11 | 2 | 10 | 10 | 3 | 8 | | 1146.8309 | -0.0001 | 0.2269E-01 | 4 | 4 | 1 | 4 | 3 | 2 | 2 | 1150.2584 | | 0.2785E-02 | |
| 8 | 11 | 6 | 5 | 12 | 7 | 6 | | 1146.8955 | 0.0031 | 0.3192E-02 | 4 | 30 | 4 | 26 | 29 | 5 | 24 | 1150.4928 | | 0.5452E-03 | |
| 6 | 11 | 6 | 6 | 12 | 7 | 5 | | 1146.8989 | -0.0003 | 0.3146E-02 | 4 | 19 | 1 | 18 | 19 | 2 | 18 | 1150.5739 | 0.0001 | 0.1178E-01 | |
| 4 | 20 | 3 | 17 | 19 | 4 | 15 | | 1146.9779 | 0.0017 | 0.2685E-02 | 4 | 11 | 1 | 10 | 12 | 0 | 12 | 1150.6895 | 0.0003 | 0.3540E-02 | |
| 6 | 8 | 7 | 1 | 9 | 8 | 2 | | 1146.9863 | | 0.8030E-03 | 6 | 16 | 4 | 13 | 17 | 5 | 12 | 1150.8582 | -0.0004 | 0.4699E-02 | |
| 6 | 8 | 7 | 2 | 9 | 8 | 1 | | 1146.9863 | | 0.8030E-03 | 6 | 18 | 4 | 12 | 17 | 5 | 13 | 1150.8739 | -0.0003 | 0.4702E-02 | |
| 4 | 27 | 2 | 26 | 28 | 1 | 28 | | 1146.9869 | | 0.2246E-03 | 4 | 22 | 2 | 21 | 23 | 1 | 23 | 1150.9668 | | 0.5653E-04 | |
| 4 | 15 | 1 | 14 | 16 | 0 | 16 | | 1147.0255 | | 0.1008E-02 | 4 | 13 | 2 | 12 | 12 | 3 | 10 | 1151.0100 | 0.0000 | 0.2287E-01 | |
| 4 | 14 | 1 | 13 | 14 | 2 | 13 | | 1147.0913 | 0.0001 | 0.1986E-01 | 4 | 12 | 2 | 10 | 11 | 3 | 8 | 1151.0201 | 0.0000 | 0.2358E-01 | |
| 8 | 14 | 6 | 10 | 15 | 6 | 9 | | 1147.2611 | 0.0004 | 0.1312E-02 | 6 | 22 | 1 | 22 | 21 | 4 | 17 | 1151.0286 | 0.0000 | 0.1193E-02 | |
| 6 | 14 | 5 | 9 | 15 | 6 | 10 | | 1147.2612 | | 0.1312E-02 | 4 | 24 | 5 | 19 | 25 | 4 | 21 | 1151.1263 | | 0.8253E-04 | |
| 4 | 21 | 3 | 19 | 20 | 4 | 17 | | 1147.5144 | -0.0005 | 0.2530E-02 | 4 | 20 | 1 | 19 | 20 | 2 | 19 | 1151.1967 | 0.0002 | 0.1019E-01 | |
| 4 | 14 | 1 | 13 | 15 | 0 | 15 | | 1147.7159 | 0.0002 | 0.1474E-02 | 6 | 20 | 3 | 17 | 21 | 4 | 18 | 1151.2267 | | 0.9357E-03 | |
| 4 | 26 | 2 | 25 | 27 | 1 | 27 | | 1147.7709 | | 0.2082E-03 | 4 | 2 | 0 | 2 | 3 | 1 | 2 | 1151.2600 | 0.0001 | 0.3516E-01 | |
| 4 | 15 | 1 | 14 | 15 | 2 | 14 | | 1147.7963 | 0.0002 | 0.1839E-01 | 4 | 23 | 3 | 21 | 22 | 4 | 19 | 1151.4531 | 0.0000 | 0.1752E-02 | |
| 6 | 22 | 2 | 20 | 21 | 5 | 17 | | 1147.8802 | | 0.1745E-03 | 4 | 4 | 1 | 3 | 3 | 2 | 1 | 1151.6593 | 0.0000 | 0.2994E-02 | |
| 4 | 26 | 5 | 22 | 27 | 4 | 24 | | 1148.0646 | | 0.1148E-03 | 4 | 21 | 1 | 20 | 21 | 2 | 20 | 1151.7643 | 0.0002 | 0.8691E-02 | |
| 4 | 29 | 4 | 25 | 28 | 5 | 23 | | 1148.1486 | | 0.6838E-03 | 6 | 23 | 2 | 21 | 22 | 5 | 18 | 1151.8311 | 0.0000 | 0.1501E-03 | |
| 4 | 3 | 1 | 3 | 2 | 2 | 1 | | 1148.1610 | | 0.1270E-02 | 6 | 9 | 6 | 3 | 10 | 7 | 4 | 1151.9183 | | 0.4157E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 9 | 6 | 4 | 10 | 7 | 3 | | 1151.9183 | | 0.4158E-02 | 6 | 20 | 1 | 20 | 19 | 4 | 15 | 1155.1541 | | 0.3169E-03 | |
| 6 | 23 | 1 | 23 | 22 | 4 | 18 | | 1151.9214 | | 0.4569E-03 | 4 | 10 | 2 | 8 | 11 | 1 | 10 | 1155.4261 | -0.0001 | 0.9742E-02 | |
| 6 | 24 | 1 | 24 | 23 | 4 | 19 | | 1151.9386 | | 0.1431E-03 | 6 | 21 | 1 | 21 | 20 | 4 | 18 | 1155.4913 | | 0.5459E-03 | |
| 4 | 18 | 1 | 9 | 11 | 6 | 11 | | 1151.9912 | 0.0000 | 0.4376E-02 | 4 | 17 | 2 | 18 | 18 | 1 | 18 | 1155.8927 | | 0.1920E-03 | |
| 6 | 19 | 3 | 17 | 20 | 4 | 16 | | 1152.2357 | | 0.1155E-02 | 6 | 24 | 2 | 22 | 23 | 5 | 19 | 1155.8239 | | 0.1272E-03 | |
| 4 | 22 | 1 | 21 | 22 | 2 | 21 | | 1152.2639 | | 0.7313E-02 | 6 | 18 | 3 | 15 | 19 | 4 | 18 | 1155.8812 | | 0.1524E-02 | |
| 4 | 5 | 1 | 5 | 4 | 2 | 3 | | 1152.2703 | | 0.4225E-02 | 6 | 14 | 4 | 11 | 15 | 5 | 10 | 1155.8898 | 0.0010 | 0.8817E-02 | |
| 4 | 18 | 3 | 16 | 19 | 2 | 18 | | 1152.2924 | | 0.1098E-03 | 6 | 14 | 4 | 10 | 15 | 5 | 11 | 1155.8951 | -0.0045 | 0.8818E-02 | |
| 6 | 12 | 5 | 8 | 13 | 6 | 7 | | 1152.3073 | 0.0000 | 0.1754E-02 | 4 | 7 | 1 | 7 | 6 | 2 | 6 | 1158.0330 | -0.0002 | 0.8801E-02 | |
| 6 | 12 | 5 | 7 | 13 | 6 | 8 | | 1152.3073 | 0.0000 | 0.1754E-02 | 4 | 22 | 3 | 19 | 21 | 4 | 17 | 1158.1897 | | 0.9755E-03 | |
| 4 | 24 | 5 | 28 | 25 | 4 | 22 | | 1152.4257 | | 0.1452E-03 | 4 | 14 | 3 | 11 | 15 | 2 | 13 | 1158.3511 | | 0.6498E-03 | |
| 4 | 11 | 2 | 9 | 12 | 1 | 11 | | 1152.4694 | 0.0001 | 0.9643E-02 | 4 | 14 | 2 | 12 | 13 | 3 | 10 | 1158.5479 | 0.0000 | 0.2300E-01 | |
| 6 | 15 | 1 | 15 | 14 | 4 | 10 | | 1152.8421 | | 0.5183E-04 | 4 | 6 | 6 | 6 | 1 | 1 | 6 | 1158.5586 | 0.0000 | 0.1938E-01 | |
| 4 | 38 | 1 | 29 | 30 | 2 | 29 | | 1152.8881 | | 0.1084E-02 | 6 | 20 | 2 | 19 | 21 | 3 | 18 | 1158.5848 | | 0.2971E-02 | |
| 4 | 19 | 4 | 15 | 20 | 3 | 17 | | 1152.8750 | | 0.5717E-04 | 4 | 18 | 3 | 14 | 17 | 2 | 18 | 1158.5815 | | 0.2233E-03 | |
| 4 | 23 | 1 | 22 | 23 | 2 | 22 | | 1152.8832 | 0.0003 | 0.8067E-02 | 4 | 22 | 5 | 17 | 23 | 4 | 19 | 1158.5917 | | 0.1234E-03 | |
| 4 | 15 | 3 | 12 | 16 | 2 | 14 | | 1152.9724 | -0.0004 | 0.5944E-03 | 4 | 7 | 1 | 6 | 8 | 0 | 6 | 1158.7671 | | 0.6497E-02 | |
| 4 | 14 | 2 | 13 | 13 | 3 | 11 | | 1153.0050 | 0.0000 | 0.2207E-01 | 4 | 18 | 2 | 15 | 15 | 3 | 13 | 1158.7728 | -0.0005 | 0.1920E-01 | |
| 4 | 24 | 1 | 23 | 24 | 2 | 23 | | 1153.0115 | | 0.4981E-02 | 4 | 18 | 2 | 16 | 17 | 1 | 17 | 1158.7990 | | 0.3889E-03 | |
| 4 | 29 | 1 | 28 | 29 | 2 | 28 | | 1153.0229 | | 0.1451E-02 | 4 | 28 | 3 | 24 | 25 | 4 | 22 | 1158.8201 | | 0.8937E-03 | |
| 6 | 21 | 2 | 26 | 22 | 3 | 19 | | 1153.0411 | -0.0004 | 0.2097E-02 | 4 | 30 | 2 | 29 | 30 | 1 | 29 | 1158.8931 | | 0.3061E-02 | |
| 4 | 25 | 1 | 24 | 25 | 2 | 24 | | 1153.2395 | | 0.3998E-02 | 6 | 7 | 6 | 1 | 8 | 7 | 2 | 1158.9216 | | 0.5045E-02 | |
| 4 | 28 | 1 | 27 | 28 | 2 | 27 | | 1153.2555 | | 0.1913E-02 | 6 | 7 | 6 | 2 | 8 | 7 | 1 | 1158.9216 | | 0.5045E-02 | |
| 4 | 24 | 3 | 22 | 23 | 4 | 26 | | 1153.3217 | | 0.1423E-02 | 4 | 6 | 1 | 5 | 5 | 2 | 3 | 1157.0778 | 0.0000 | 0.6499E-02 | |
| 4 | 28 | 1 | 25 | 26 | 2 | 25 | | 1153.3599 | | 0.3175E-02 | 4 | 22 | 5 | 18 | 23 | 4 | 26 | 1157.2054 | | 0.1745E-03 | |
| 4 | 27 | 1 | 26 | 27 | 2 | 26 | | 1153.3667 | | 0.2483E-02 | 6 | 10 | 5 | 5 | 11 | 6 | 6 | 1157.3276 | -0.0001 | 0.2236E-02 | |
| 6 | 15 | 4 | 12 | 16 | 5 | 11 | | 1153.3765 | 0.0000 | 0.5813E-02 | 6 | 10 | 5 | 6 | 11 | 6 | 5 | 1157.3276 | -0.0001 | 0.2236E-02 | |
| 6 | 16 | 1 | 18 | 15 | 4 | 11 | | 1153.3857 | | 0.7202E-04 | 6 | 28 | 8 | 19 | 26 | 9 | 18 | 1157.3810 | | 0.5302E-04 | |
| 6 | 15 | 4 | 11 | 16 | 5 | 12 | | 1153.3859 | | 0.5815E-02 | 6 | 28 | 8 | 18 | 26 | 9 | 17 | 1157.3810 | | 0.5302E-04 | |
| 4 | 9 | 1 | 8 | 10 | 0 | 10 | | 1153.4434 | | 0.5202E-02 | 6 | 17 | 3 | 15 | 18 | 4 | 14 | 1157.5679 | | 0.1851E-02 | |
| 6 | 19 | 3 | 16 | 20 | 4 | 17 | | 1153.5358 | | 0.1205E-02 | 4 | 23 | 3 | 20 | 22 | 4 | 18 | 1157.6454 | | 0.1344E-02 | |
| 4 | 13 | 2 | 11 | 12 | 3 | 9 | | 1153.7552 | 0.0001 | 0.2356E-01 | 6 | 25 | 8 | 17 | 25 | 9 | 16 | 1157.7063 | | 0.6772E-04 | |
| 4 | 23 | 5 | 18 | 24 | 4 | 20 | | 1153.8777 | | 0.1022E-03 | 6 | 25 | 8 | 18 | 26 | 9 | 17 | 1157.7063 | | 0.6772E-04 | |
| 4 | 1 | 0 | 1 | 2 | 1 | 1 | | 1153.9548 | 0.0000 | 0.2791E-01 | 4 | 8 | 1 | 8 | 7 | 2 | 6 | 1157.7813 | 0.0000 | 0.7411E-02 | |
| 6 | 17 | 1 | 17 | 16 | 4 | 12 | | 1153.9978 | | 0.9974E-04 | 4 | 15 | 2 | 14 | 16 | 1 | 16 | 1157.9698 | 0.0002 | 0.6732E-03 | |
| 4 | 8 | 1 | 6 | 5 | 2 | 4 | | 1154.1956 | 0.0001 | 0.5527E-02 | 6 | 24 | 8 | 16 | 24 | 9 | 15 | 1158.0244 | | 0.8527E-04 | |
| 4 | 5 | 1 | 4 | 4 | 2 | 2 | | 1154.3534 | -0.0001 | 0.4753E-02 | 6 | 24 | 8 | 17 | 24 | 9 | 16 | 1158.0244 | | 0.8527E-04 | |
| 4 | 17 | 3 | 15 | 18 | 2 | 17 | | 1154.4109 | | 0.1808E-03 | 4 | 29 | 2 | 28 | 29 | 1 | 28 | 1158.0920 | | 0.4052E-02 | |
| 6 | 8 | 6 | 3 | 9 | 7 | 2 | | 1154.4238 | | 0.4600E-02 | 6 | 17 | 3 | 14 | 18 | 4 | 15 | 1158.2589 | -0.0003 | 0.1897E-02 | |
| 6 | 8 | 6 | 2 | 9 | 7 | 3 | | 1154.4238 | | 0.4600E-02 | 6 | 23 | 8 | 16 | 23 | 9 | 15 | 1158.3346 | | 0.1058E-03 | |
| 6 | 18 | 1 | 18 | 17 | 4 | 13 | | 1154.4828 | | 0.1399E-03 | 6 | 23 | 8 | 15 | 23 | 9 | 14 | 1158.3346 | | 0.1058E-03 | |
| 4 | 18 | 2 | 17 | 19 | 1 | 19 | | 1154.5847 | | 0.7141E-04 | 6 | 13 | 4 | 10 | 14 | 5 | 9 | 1158.3981 | 0.0016 | 0.7697E-02 | |
| 6 | 18 | 1 | 18 | 19 | 2 | 17 | | 1154.7048 | | 0.4728E-03 | 6 | 13 | 4 | 9 | 14 | 5 | 10 | 1158.4011 | -0.0014 | 0.7698E-02 | |
| 4 | 23 | 5 | 19 | 24 | 4 | 21 | | 1154.7772 | | 0.1599E-03 | 4 | 9 | 2 | 7 | 10 | 1 | 9 | 1158.4220 | -0.0002 | 0.9524E-02 | |
| 6 | 11 | 5 | 6 | 12 | 6 | 7 | | 1154.8207 | | 0.1992E-02 | 4 | 27 | 3 | 25 | 26 | 4 | 23 | 1158.4346 | | 0.6918E-03 | |
| 6 | 11 | 5 | 7 | 12 | 6 | 6 | | 1154.8207 | | 0.1992E-02 | 4 | 17 | 2 | 16 | 16 | 3 | 14 | 1158.5325 | -0.0002 | 0.1735E-01 | |
| 6 | 19 | 1 | 19 | 18 | 4 | 14 | | 1154.8550 | | 0.2035E-03 | 4 | 6 | 1 | 5 | 7 | 0 | 7 | 1158.6178 | 0.0001 | 0.8786E-02 | |
| 6 | 18 | 3 | 18 | 19 | 4 | 15 | | 1154.9233 | | 0.1475E-02 | 6 | 22 | 8 | 14 | 22 | 9 | 13 | 1158.6364 | | 0.1294E-03 | |
| 4 | 15 | 2 | 14 | 14 | 3 | 12 | | 1154.9281 | 0.0000 | 0.2081E-01 | 6 | 22 | 8 | 15 | 22 | 9 | 14 | 1158.6364 | | 0.1294E-03 | |
| 4 | 8 | 1 | 7 | 9 | 0 | 9 | | 1155.0386 | 0.0002 | 0.5938E-02 | 4 | 15 | 3 | 13 | 16 | 2 | 15 | 1158.8010 | | 0.2983E-03 | |
| 4 | 25 | 3 | 23 | 24 | 4 | 21 | | 1155.1132 | | 0.1137E-02 | 6 | 21 | 8 | 14 | 21 | 9 | 13 | 1158.9292 | | 0.1558E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 21 | 8 | 13 | 21 | 9 | 12 | | 1158.9292 | | 0.1558E-03 | 6 | 12 | 8 | 4 | 12 | 9 | 3 | 1161.0790 | | 0.3213E-03 | |
| 4 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1159.1357 | 0.0000 | 0.2957E-01 | 8 | 12 | 8 | 5 | 12 | 9 | 4 | 1161.0790 | | 0.3213E-03 | |
| 4 | 14 | 2 | 13 | 15 | 1 | 15 | | 1159.2087 | -0.0003 | 0.1050E-02 | 4 | 8 | 8 | 8 | 8 | 1 | 8 | 1161.2039 | 0.0001 | 0.1269E+00 | |
| 6 | 20 | 8 | 12 | 20 | 9 | 11 | | 1159.2125 | | 0.1848E-03 | 6 | 11 | 8 | 3 | 11 | 9 | 2 | 1161.2561 | | 0.2855E-03 | |
| 6 | 20 | 8 | 13 | 20 | 9 | 12 | | 1159.2125 | | 0.1848E-03 | 8 | 11 | 8 | 4 | 11 | 9 | 3 | 1161.2561 | | 0.2855E-03 | |
| 4 | 2 | 0 | 2 | 2 | 1 | 2 | | 1159.2717 | -0.0001 | 0.4855E-01 | 4 | 29 | 3 | 27 | 28 | 4 | 25 | 1161.3564 | | 0.3953E-03 | |
| 4 | 21 | 5 | 16 | 22 | 4 | 18 | | 1159.2758 | | 0.1456E-03 | 6 | 10 | 8 | 3 | 10 | 9 | 2 | 1161.4196 | | 0.2241E-03 | |
| 4 | 28 | 2 | 27 | 28 | 1 | 27 | | 1159.2930 | | 0.5269E-02 | 6 | 10 | 8 | 2 | 10 | 9 | 1 | 1161.4196 | | 0.2241E-03 | |
| 4 | 15 | 2 | 13 | 14 | 3 | 11 | | 1159.3917 | -0.0002 | 0.2202E-01 | 4 | 8 | 2 | 6 | 9 | 1 | 8 | 1161.4368 | -0.0002 | 0.8998E-02 | |
| 6 | 6 | 0 | 7 | 7 | 7 | 1 | | 1159.4110 | | 0.5498E-02 | 8 | 9 | 8 | 2 | 9 | 9 | 1 | 1161.5691 | | 0.1313E-03 | |
| 6 | 6 | 6 | 1 | 7 | 7 | 0 | | 1159.4110 | | 0.5498E-02 | 6 | 9 | 8 | 1 | 9 | 9 | 0 | 1161.5691 | | 0.1313E-03 | |
| 4 | 9 | 1 | 9 | 8 | 2 | 7 | | 1159.4397 | -0.0002 | 0.7941E-02 | 4 | 9 | 8 | 9 | 9 | 1 | 9 | 1161.6324 | 0.0000 | 0.1314E+00 | |
| 4 | 3 | 0 | 3 | 3 | 1 | 3 | | 1159.4717 | 0.0001 | 0.8844E-01 | 4 | 28 | 2 | 25 | 28 | 1 | 25 | 1161.7386 | | 0.8446E-02 | |
| 6 | 19 | 8 | 12 | 19 | 9 | 11 | | 1159.4857 | | 0.2150E-03 | 4 | 19 | 2 | 18 | 18 | 3 | 16 | 1161.7721 | 0.0002 | 0.1337E-01 | |
| 6 | 19 | 8 | 11 | 19 | 9 | 10 | | 1159.4857 | | 0.2150E-03 | 4 | 12 | 2 | 11 | 13 | 1 | 13 | 1161.9019 | -0.0003 | 0.2052E-02 | |
| 4 | 13 | 3 | 10 | 14 | 2 | 12 | | 1159.6375 | | 0.7008E-03 | 4 | 20 | 5 | 15 | 21 | 4 | 17 | 1161.9353 | | 0.1678E-03 | |
| 4 | 21 | 5 | 17 | 22 | 4 | 19 | | 1159.6881 | | 0.1891E-03 | 4 | 10 | 8 | 10 | 10 | 1 | 10 | 1162.0630 | -0.0001 | 0.1331E+00 | |
| 4 | 4 | 0 | 4 | 4 | 1 | 4 | | 1159.7306 | 0.0001 | 0.8283E-01 | 4 | 28 | 5 | 16 | 21 | 4 | 18 | 1162.2083 | | 0.2035E-03 | |
| 6 | 18 | 8 | 10 | 18 | 9 | 9 | | 1159.7485 | | 0.2458E-03 | 4 | 18 | 2 | 14 | 15 | 3 | 12 | 1162.2768 | -0.0001 | 0.2070E-01 | |
| 6 | 18 | 8 | 11 | 18 | 9 | 10 | | 1159.7485 | | 0.2458E-03 | 6 | 8 | 5 | 4 | 9 | 6 | 3 | 1162.3208 | -0.0004 | 0.2726E-02 | |
| 4 | 7 | 1 | 6 | 6 | 2 | 4 | | 1159.8188 | -0.0002 | 0.8157E-02 | 6 | 8 | 5 | 3 | 9 | 6 | 4 | 1162.3208 | -0.0004 | 0.2726E-02 | |
| 6 | 9 | 5 | 4 | 10 | 8 | 5 | | 1159.8278 | 0.0000 | 0.2482E-02 | 4 | 11 | 1 | 11 | 10 | 2 | 9 | 1162.4833 | | 0.8200E-02 | |
| 6 | 9 | 5 | 5 | 10 | 8 | 4 | | 1159.8278 | 0.0000 | 0.2482E-02 | 4 | 11 | 0 | 11 | 11 | 1 | 11 | 1162.4850 | -0.0001 | 0.1320E+00 | |
| 6 | 25 | 2 | 23 | 24 | 5 | 20 | | 1159.8424 | | 0.1063E-03 | 4 | 25 | 3 | 22 | 24 | 4 | 20 | 1162.5059 | | 0.1146E-02 | |
| 4 | 24 | 3 | 21 | 23 | 4 | 19 | | 1159.8795 | | 0.1332E-02 | 4 | 8 | 1 | 7 | 7 | 2 | 5 | 1162.5601 | 0.0001 | 0.9659E-02 | |
| 4 | 28 | 3 | 26 | 27 | 4 | 24 | | 1159.9493 | | 0.5270E-03 | 4 | 4 | 1 | 3 | 5 | 0 | 5 | 1162.6398 | -0.0001 | 0.8248E-02 | |
| 6 | 19 | 2 | 18 | 20 | 3 | 17 | | 1159.9539 | 0.0002 | 0.4102E-02 | 4 | 30 | 3 | 28 | 29 | 4 | 26 | 1162.6492 | | 0.2919E-03 | |
| 6 | 17 | 8 | 9 | 17 | 9 | 8 | | 1160.0002 | | 0.2756E-03 | 6 | 15 | 3 | 13 | 16 | 4 | 12 | 1162.7555 | | 0.2788E-02 | |
| 6 | 17 | 8 | 10 | 17 | 9 | 9 | | 1160.0002 | | 0.2756E-03 | 4 | 12 | 3 | 9 | 13 | 2 | 11 | 1162.8253 | | 0.7453E-03 | |
| 4 | 5 | 0 | 5 | 5 | 1 | 5 | | 1160.0420 | 0.0001 | 0.9738E-01 | 4 | 12 | 0 | 12 | 12 | 1 | 12 | 1162.8890 | -0.0002 | 0.1285E+00 | |
| 6 | 16 | 3 | 14 | 17 | 4 | 13 | | 1160.1765 | -0.0008 | 0.2282E-02 | 4 | 25 | 2 | 24 | 25 | 1 | 24 | 1162.9969 | | 0.1041E-01 | |
| 4 | 18 | 2 | 17 | 17 | 3 | 15 | | 1160.2010 | 0.0001 | 0.1538E-01 | 6 | 15 | 3 | 12 | 16 | 4 | 13 | 1163.0905 | -0.0005 | 0.2804E-02 | |
| 6 | 16 | 8 | 8 | 18 | 9 | 7 | | 1160.2405 | | 0.3024E-03 | 6 | 18 | 2 | 17 | 19 | 3 | 16 | 1163.2144 | 0.0003 | 0.5515E-02 | |
| 8 | 18 | 8 | 9 | 18 | 9 | 8 | | 1160.2405 | | 0.3024E-03 | 4 | 20 | 2 | 19 | 19 | 3 | 17 | 1163.2401 | 0.0002 | 0.1142E-01 | |
| 6 | 17 | 1 | 17 | 18 | 2 | 18 | | 1160.2452 | | 0.6925E-03 | 4 | 13 | 0 | 13 | 13 | 1 | 13 | 1163.2672 | 0.0000 | 0.1226E+00 | |
| 4 | 6 | 0 | 6 | 6 | 1 | 6 | | 1160.3978 | 0.0001 | 0.1097E+00 | 4 | 11 | 2 | 10 | 12 | 1 | 12 | 1163.3595 | -0.0001 | 0.2634E-02 | |
| 6 | 15 | 8 | 8 | 15 | 9 | 7 | | 1160.4689 | | 0.3235E-03 | 4 | 13 | 3 | 11 | 14 | 2 | 13 | 1163.3704 | | 0.4626E-03 | |
| 6 | 15 | 8 | 7 | 15 | 9 | 6 | | 1160.4689 | | 0.3235E-03 | 6 | 11 | 4 | 8 | 12 | 5 | 7 | 1163.3997 | 0.0002 | 0.1001E-01 | |
| 4 | 27 | 2 | 28 | 27 | 1 | 28 | | 1160.5059 | | 0.6730E-02 | 6 | 11 | 4 | 7 | 12 | 5 | 8 | 1163.4005 | -0.0006 | 0.1001E-01 | |
| 4 | 13 | 2 | 12 | 14 | 1 | 14 | | 1160.5187 | -0.0003 | 0.1514E-02 | 6 | 29 | 2 | 27 | 30 | 3 | 28 | 1163.5862 | | 0.8786E-03 | |
| 4 | 5 | 1 | 4 | 6 | 0 | 6 | | 1160.5791 | 0.0000 | 0.8725E-02 | 4 | 14 | 0 | 14 | 14 | 1 | 14 | 1163.6139 | | 0.1150E+00 | |
| 6 | 16 | 3 | 13 | 17 | 4 | 14 | | 1160.6637 | -0.0001 | 0.2325E-02 | 4 | 2 | 0 | 2 | 1 | 1 | 0 | 1163.8085 | 0.0001 | 0.9932E-02 | |
| 6 | 14 | 8 | 7 | 14 | 9 | 6 | | 1160.6851 | | 0.3361E-03 | 4 | 12 | 1 | 12 | 11 | 2 | 10 | 1163.8677 | -0.0001 | 0.7982E-02 | |
| 6 | 14 | 8 | 6 | 14 | 9 | 5 | | 1160.6851 | | 0.3361E-03 | 6 | 26 | 2 | 24 | 25 | 5 | 21 | 1163.8694 | | 0.8781E-04 | |
| 4 | 7 | 0 | 7 | 7 | 1 | 7 | | 1160.7886 | -0.0001 | 0.1197E+00 | 4 | 15 | 0 | 15 | 15 | 1 | 15 | 1163.9258 | -0.0001 | 0.1059E+00 | |
| 6 | 13 | 8 | 6 | 13 | 9 | 5 | | 1160.8885 | | 0.3367E-03 | 6 | 28 | 2 | 26 | 29 | 3 | 27 | 1164.1139 | | 0.9039E-03 | |
| 6 | 13 | 8 | 5 | 13 | 9 | 4 | | 1160.8885 | | 0.3367E-03 | 4 | 16 | 0 | 18 | 18 | 1 | 18 | 1164.2017 | 0.0001 | 0.9586E-01 | |
| 6 | 12 | 4 | 9 | 13 | 5 | 8 | | 1160.9015 | 0.0008 | 0.8837E-02 | 4 | 24 | 2 | 23 | 24 | 1 | 23 | 1164.2632 | | 0.1262E-01 | |
| 6 | 12 | 4 | 8 | 13 | 5 | 9 | | 1160.9031 | -0.0010 | 0.8837E-02 | 4 | 22 | 8 | 18 | 23 | 5 | 18 | 1164.3229 | | 0.5508E-04 | |
| 4 | 10 | 1 | 10 | 9 | 2 | 8 | | 1161.0072 | -0.0001 | 0.8197E-02 | 4 | 22 | 8 | 17 | 23 | 5 | 19 | 1164.3392 | 0.0001 | 0.5559E-04 | |
| 4 | 14 | 3 | 12 | 15 | 2 | 14 | | 1161.0653 | | 0.3774E-03 | 4 | 17 | 0 | 17 | 17 | 1 | 17 | 1164.4417 | 0.0000 | 0.8538E-01 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|------------|------------|----|----|----|----|----|-----------|-----------|------------|------------|------------|----------|
| 4 | 7 | 2 | 5 | 8 | 1 | 7 | | 1164.4514 | -0.0007 | 0.8188E-02 | 6 | 23 | 7 | 18 | 23 | 8 | 15 | 1168.2267 | | 0.8842E-04 | |
| 4 | 19 | 5 | 14 | 20 | 4 | 16 | | 1164.5754 | 0.1891E-03 | 0.1891E-03 | 6 | 23 | 7 | 17 | 23 | 8 | 16 | 1168.2268 | | 0.8842E-04 | |
| 4 | 21 | 2 | 26 | 20 | 3 | 18 | | 1164.5992 | 0.0002 | 0.9572E-02 | 4 | 22 | 1 | 22 | 22 | 9 | 22 | 1168.3137 | 0.0001 | 0.1239E-01 | |
| 4 | 18 | 0 | 18 | 18 | 1 | 18 | | 1164.6478 | 0.0000 | 0.7484E-01 | 6 | 17 | 2 | 16 | 18 | 3 | 15 | 1168.3549 | 0.0006 | 0.7224E-02 | |
| 6 | 27 | 2 | 25 | 28 | 3 | 26 | | 1164.6740 | 0.1191E-02 | 0.2173E-03 | 4 | 14 | 1 | 14 | 13 | 2 | 12 | 1168.3624 | | 0.7048E-02 | |
| 4 | 19 | 5 | 15 | 20 | 4 | 17 | | 1164.7531 | 0.0002 | 0.5322E-02 | 6 | 22 | 7 | 16 | 22 | 8 | 14 | 1168.4574 | | 0.1060E-03 | |
| 4 | 3 | 1 | 2 | 4 | 0 | 4 | | 1164.7894 | 0.0002 | 0.2967E-02 | 4 | 21 | 1 | 21 | 21 | 0 | 21 | 1168.4847 | -0.0001 | 0.1491E-01 | |
| 6 | 7 | 5 | 3 | 8 | 6 | 2 | | 1164.8068 | -0.0002 | 0.2987E-02 | 4 | 9 | 2 | 8 | 10 | 1 | 10 | 1168.5032 | -0.0003 | 0.3751E-02 | |
| 4 | 19 | 0 | 19 | 19 | 1 | 19 | | 1164.8228 | 0.0001 | 0.8480E-01 | 4 | 28 | 1 | 20 | 20 | 0 | 20 | 1168.8451 | -0.0002 | 0.1767E-01 | |
| 4 | 10 | 2 | 9 | 11 | 1 | 11 | | 1164.8931 | 0.0001 | 0.3218E-02 | 6 | 24 | 2 | 22 | 25 | 3 | 23 | 1168.8603 | | 0.2651E-02 | |
| 4 | 20 | 0 | 20 | 20 | 1 | 20 | | 1164.9701 | 0.0000 | 0.5494E-01 | 6 | 21 | 7 | 14 | 21 | 8 | 13 | 1168.8814 | | 0.1280E-03 | |
| 4 | 21 | 0 | 21 | 21 | 1 | 21 | | 1165.0931 | 0.0000 | 0.4608E-01 | 6 | 21 | 7 | 15 | 21 | 8 | 14 | 1168.8915 | | 0.1280E-03 | |
| 4 | 13 | 1 | 13 | 12 | 2 | 11 | | 1165.1605 | 0.0001 | 0.7583E-02 | 4 | 19 | 1 | 19 | 19 | 0 | 19 | 1168.8585 | -0.0001 | 0.2061E-01 | |
| 4 | 17 | 2 | 15 | 16 | 3 | 13 | | 1165.1884 | 0.0004 | 0.1914E-01 | 6 | 20 | 7 | 14 | 20 | 8 | 13 | 1168.8984 | | 0.1523E-03 | |
| 4 | 22 | 0 | 22 | 22 | 1 | 22 | | 1165.1966 | -0.0001 | 0.3806E-01 | 6 | 20 | 7 | 13 | 20 | 8 | 12 | 1168.8984 | | 0.1523E-03 | |
| 6 | 26 | 2 | 24 | 27 | 3 | 25 | | 1165.2782 | 0.1551E-02 | 0.22 | 2 | 21 | 22 | 1 | 21 | 1168.9351 | 0.0006 | 0.1759E-01 | | | |
| 4 | 23 | 0 | 23 | 23 | 1 | 23 | | 1165.2808 | 0.0007 | 0.3103E-01 | 4 | 23 | 2 | 22 | 22 | 3 | 20 | 1168.9698 | 0.0008 | 0.6386E-02 | |
| 4 | 9 | 1 | 8 | 8 | 2 | 6 | | 1165.2839 | 0.1094E-01 | 4 | 21 | 8 | 15 | 22 | 5 | 17 | 1168.9806 | | 0.6490E-04 | | |
| 6 | 14 | 3 | 12 | 15 | 4 | 11 | | 1165.3101 | -0.0010 | 0.3302E-02 | 4 | 21 | 8 | 16 | 22 | 5 | 18 | 1168.9908 | | 0.6531E-04 | |
| 4 | 26 | 3 | 23 | 25 | 4 | 21 | | 1165.3231 | 0.9359E-03 | 0.2496E-01 | 4 | 2 | 1 | 1 | 3 | 0 | 3 | 1167.0188 | 0.0001 | 0.3943E-02 | |
| 4 | 24 | 0 | 24 | 24 | 1 | 24 | | 1165.3519 | 0.0004 | 0.1981E-01 | 6 | 19 | 7 | 12 | 19 | 8 | 11 | 1167.1077 | | 0.1782E-03 | |
| 4 | 25 | 0 | 25 | 25 | 1 | 25 | | 1165.4117 | 0.0003 | 0.1552E-01 | 4 | 18 | 1 | 18 | 18 | 0 | 18 | 1167.1080 | -0.0002 | 0.2386E-01 | |
| 4 | 26 | 0 | 26 | 26 | 1 | 26 | | 1165.4626 | 0.0004 | 0.1200E-01 | 4 | 18 | 5 | 13 | 19 | 4 | 15 | 1167.1995 | | 0.2085E-03 | |
| 4 | 27 | 0 | 27 | 27 | 1 | 27 | | 1165.5070 | 0.0008 | 0.3332E-02 | 6 | 6 | 5 | 2 | 7 | 6 | 1 | 1167.2858 | -0.0001 | 0.3206E-02 | |
| 6 | 14 | 3 | 11 | 15 | 4 | 12 | | 1165.5341 | -0.0003 | 0.9163E-02 | 6 | 6 | 5 | 1 | 7 | 6 | 2 | 1167.2858 | -0.0001 | 0.3206E-02 | |
| 4 | 28 | 0 | 28 | 28 | 1 | 28 | | 1165.5463 | 0.0009 | 0.1012E-02 | 6 | 18 | 7 | 11 | 18 | 8 | 10 | 1167.3091 | | 0.2051E-03 | |
| 6 | 16 | 1 | 16 | 17 | 2 | 15 | | 1165.5797 | 0.8910E-02 | 0.1502E-01 | 6 | 18 | 7 | 12 | 18 | 8 | 11 | 1167.3130 | | 0.2299E-03 | |
| 4 | 29 | 0 | 29 | 29 | 1 | 29 | | 1165.5823 | 0.0008 | 0.5146E-02 | 4 | 18 | 5 | 14 | 19 | 4 | 16 | 1167.3969 | -0.0002 | 0.2670E-01 | |
| 4 | 23 | 2 | 22 | 23 | 1 | 22 | | 1165.5970 | 0.4335E-03 | 0.5466E-03 | 4 | 17 | 1 | 17 | 17 | 0 | 17 | 1167.4470 | 0.0001 | 0.7129E-02 | |
| 4 | 30 | 0 | 30 | 30 | 1 | 30 | | 1165.6161 | 0.0013+ | 0.6560E-04 | 6 | 23 | 2 | 21 | 24 | 3 | 22 | 1167.4574 | 0.0004 | 0.3220E-02 | |
| 4 | 12 | 3 | 10 | 13 | 2 | 12 | | 1165.7117 | 0.6560E-04 | 0.2292E-02 | 4 | 15 | 1 | 15 | 14 | 2 | 13 | 1167.4742 | 0.0000 | 0.6415E-02 | |
| 4 | 30 | 3 | 28 | 30 | 2 | 28 | | 1165.7372 | 0.1709E-02 | 0.1120E-01 | 6 | 17 | 7 | 11 | 17 | 8 | 10 | 1167.5020 | | 0.2318E-03 | |
| 6 | 25 | 7 | 18 | 25 | 8 | 17 | | 1165.7480 | 0.2292E-02 | 0.1120E-01 | 6 | 16 | 7 | 9 | 16 | 8 | 8 | 1167.6859 | | 0.2569E-03 | |
| 6 | 25 | 7 | 19 | 25 | 8 | 18 | | 1165.7484 | 0.0008 | 0.7886E-02 | 6 | 16 | 7 | 10 | 17 | 8 | 9 | 1167.7268 | -0.0002 | 0.2961E-01 | |
| 4 | 30 | 1 | 30 | 30 | 0 | 30 | | 1165.8112 | 0.3968E-02 | 0.3035E-02 | 6 | 13 | 3 | 11 | 14 | 4 | 10 | 1167.8448 | -0.0004 | 0.3877E-02 | |
| 4 | 29 | 1 | 29 | 29 | 0 | 29 | | 1165.8269 | 0.0006 | 0.6947E-04 | 6 | 15 | 7 | 9 | 15 | 8 | 8 | 1167.8807 | | 0.2786E-03 | |
| 4 | 22 | 2 | 21 | 21 | 3 | 19 | | 1165.8442 | 0.0010 | 0.6947E-04 | 6 | 15 | 7 | 8 | 15 | 8 | 7 | 1167.8807 | | 0.2786E-03 | |
| 4 | 28 | 1 | 28 | 28 | 0 | 28 | | 1165.8525 | 0.0004 | 0.8520E-02 | 6 | 16 | 1 | 16 | 16 | 0 | 16 | 1167.9705 | 0.0005 | 0.1196E-01 | |
| 4 | 27 | 1 | 27 | 27 | 0 | 27 | | 1165.8895 | -0.0006 | 0.1120E-01 | 6 | 13 | 3 | 10 | 14 | 4 | 10 | 1167.9716 | | 0.5083E-02 | |
| 6 | 10 | 4 | 7 | 11 | 5 | 8 | | 1165.8927 | -0.0010 | 0.1120E-01 | 6 | 15 | 7 | 9 | 15 | 8 | 8 | 1167.9899 | -0.0002 | 0.3901E-02 | |
| 6 | 10 | 4 | 6 | 11 | 5 | 7 | | 1165.8931 | 0.7800E-03 | 0.2000E-02 | 4 | 29 | 3 | 27 | 29 | 2 | 27 | 1167.9572 | | 0.5555E-03 | |
| 4 | 11 | 3 | 8 | 12 | 2 | 10 | | 1165.9117 | 0.5121E-02 | 0.5121E-02 | 4 | 10 | 1 | 9 | 9 | 2 | 7 | 1167.9705 | 0.0005 | 0.1196E-01 | |
| 6 | 25 | 2 | 23 | 28 | 3 | 24 | | 1165.9369 | -0.0001 | 0.6947E-04 | 4 | 24 | 2 | 23 | 23 | 3 | 21 | 1167.9716 | | 0.5083E-02 | |
| 4 | 28 | 1 | 28 | 28 | 0 | 26 | | 1165.9395 | -0.0001 | 0.6947E-04 | 6 | 13 | 3 | 10 | 14 | 4 | 11 | 1167.9899 | -0.0002 | 0.2948E-03 | |
| 6 | 24 | 7 | 17 | 24 | 8 | 18 | | 1165.9901 | 0.6947E-04 | 0.6947E-04 | 6 | 14 | 7 | 8 | 14 | 8 | 7 | 1168.0260 | | 0.2948E-03 | |
| 6 | 24 | 7 | 18 | 24 | 8 | 17 | | 1165.9904 | 0.6947E-04 | 0.6947E-04 | 6 | 14 | 7 | 7 | 14 | 8 | 6 | 1168.0260 | | 0.2948E-03 | |
| 4 | 25 | 1 | 25 | 25 | 0 | 26 | | 1168.0044 | 0.0001 | 0.8520E-02 | 6 | 14 | 7 | 8 | 15 | 8 | 7 | 1168.0847 | | 0.8225E-03 | |
| 4 | 3 | 0 | 3 | 2 | 1 | 1 | | 1168.0336 | 0.0000 | 0.1938E-01 | 6 | 14 | 7 | 8 | 14 | 8 | 7 | 1168.0847 | | 0.8225E-03 | |
| 4 | 24 | 1 | 24 | 24 | 0 | 24 | | 1168.0867 | -0.0001 | 0.8191E-02 | 4 | 11 | 3 | 9 | 12 | 2 | 11 | 1168.0867 | | 0.8225E-03 | |
| 4 | 23 | 1 | 23 | 23 | 0 | 23 | | 1168.1888 | -0.0001 | 0.1015E-01 | 4 | 15 | 1 | 15 | 15 | 0 | 15 | 1168.0990 | -0.0002 | 0.3224E-01 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 4 | 18 | 2 | 16 | | 17 | 3 | 14 | 1168.1098 | -0.0003 | 0.1741E-01 | 4 | 11 | 1 | 10 | | 10 | 2 | 8 | 1170.5985 | 0.0000 | 0.1286E-01 |
| 4 | 4 | 0 | 4 | | 3 | 1 | 2 | 1168.1548 | 0.0000 | 0.2787E-01 | 4 | 28 | 2 | 27 | | 27 | 3 | 26 | 1170.8442 | 0.1724E-02 | |
| 6 | 13 | 7 | 7 | | 13 | 8 | 6 | 1168.1815 | | 0.3030E-03 | 6 | 15 | 1 | 15 | | 18 | 2 | 14 | 1170.8924 | 0.1457E-02 | |
| 6 | 13 | 7 | 6 | | 13 | 8 | 5 | 1168.1815 | | 0.3030E-03 | 6 | 8 | 4 | 5 | | 9 | 5 | 4 | 1170.8825 | -0.0005 | 0.1352E-01 |
| 4 | 8 | 2 | 7 | | 9 | 1 | 9 | 1168.1899 | -0.0001 | 0.4167E-02 | 6 | 8 | 4 | 4 | | 9 | 5 | 5 | 1170.8825 | -0.0005 | 0.1352E-01 |
| 4 | 27 | 3 | 24 | | 26 | 4 | 22 | 1168.2444 | | 0.7443E-03 | 4 | 29 | 2 | 28 | | 28 | 3 | 28 | 1170.9582 | | 0.1261E-02 |
| 4 | 21 | 2 | 20 | | 21 | 1 | 20 | 1168.2915 | 0.0002 | 0.2025E-01 | 4 | 19 | 2 | 17 | | 18 | 3 | 15 | 1171.0199 | 0.0027 | 0.1560E-01 |
| 6 | 12 | 7 | 5 | | 12 | 8 | 4 | 1168.3270 | | 0.3003E-03 | 4 | 9 | 1 | 9 | | 9 | 0 | 9 | 1171.0225 | 0.0002 | 0.3577E-01 |
| 6 | 12 | 7 | 6 | | 12 | 8 | 5 | 1168.3270 | | 0.3003E-03 | 4 | 19 | 2 | 18 | | 19 | 1 | 18 | 1171.0267 | -0.0041 | 0.2556E-01 |
| 6 | 22 | 2 | 20 | | 23 | 3 | 21 | 1168.3365 | 0.0004 | 0.4025E-02 | 4 | 19 | 1 | 19 | | 18 | 2 | 17 | 1171.0601 | 0.0000 | 0.3684E-02 |
| 6 | 9 | 4 | 6 | | 10 | 5 | 5 | 1168.3804 | -0.0004 | 0.1238E-01 | 4 | 30 | 2 | 29 | | 29 | 3 | 27 | 1171.1167 | | 0.9084E-03 |
| 6 | 9 | 4 | 5 | | 10 | 5 | 6 | 1168.3806 | -0.0006 | 0.1238E-01 | 4 | 28 | 3 | 25 | | 27 | 4 | 23 | 1171.2227 | | 0.5813E-03 |
| 6 | 11 | 7 | 4 | | 11 | 8 | 3 | 1168.4622 | | 0.2837E-03 | 4 | 13 | 4 | 10 | | 14 | 3 | 12 | 1171.3979 | | 0.9089E-04 |
| 6 | 11 | 7 | 5 | | 11 | 8 | 4 | 1168.4622 | | 0.2837E-03 | 6 | 19 | 2 | 17 | | 20 | 3 | 18 | 1171.5388 | 0.0010 | 0.7402E-02 |
| 4 | 16 | 1 | 18 | | 15 | 2 | 14 | 1168.4978 | -0.0001 | 0.5730E-02 | 4 | 8 | 1 | 8 | | 8 | 0 | 8 | 1171.5479 | -0.0001 | 0.3385E-01 |
| 4 | 14 | 1 | 14 | | 14 | 0 | 14 | 1168.5125 | -0.0001 | 0.3448E-01 | 4 | 20 | 1 | 20 | | 19 | 2 | 18 | 1171.7651 | 0.0001 | 0.3080E-02 |
| 6 | 10 | 7 | 3 | | 10 | 8 | 2 | 1168.5887 | | 0.2497E-03 | 4 | 9 | 3 | 6 | | 10 | 2 | 8 | 1171.7876 | 0.8017E-03 | |
| 6 | 10 | 7 | 4 | | 10 | 8 | 3 | 1168.5887 | | 0.2497E-03 | 4 | 6 | 2 | 5 | | 7 | 1 | 7 | 1171.7927 | -0.0005 | 0.4382E-02 |
| 6 | 9 | 7 | 2 | | 9 | 8 | 1 | 1168.7004 | | 0.1944E-03 | 6 | 28 | 2 | 26 | | 27 | 5 | 23 | 1171.8752 | | 0.5732E-04 |
| 6 | 9 | 7 | 3 | | 9 | 8 | 2 | 1168.7004 | | 0.1944E-03 | 4 | 7 | 1 | 7 | | 7 | 0 | 7 | 1172.0531 | 0.0016 | 0.3129E-01 |
| 4 | 14 | 4 | 11 | | 15 | 3 | 13 | 1168.7430 | | 0.8578E-04 | 4 | 6 | 0 | 6 | | 5 | 1 | 4 | 1172.0562 | -0.0016 | 0.4058E-01 |
| 8 | 8 | 7 | 2 | | 8 | 8 | 1 | 1168.8035 | | 0.1131E-03 | 4 | 19 | 6 | 13 | | 20 | 5 | 15 | 1172.2603 | | 0.8625E-04 |
| 8 | 8 | 7 | 1 | | 8 | 8 | 0 | 1168.8035 | | 0.1131E-03 | 4 | 19 | 6 | 14 | | 20 | 5 | 16 | 1172.2642 | | 0.8646E-04 |
| 4 | 25 | 2 | 24 | | 24 | 3 | 22 | 1168.8444 | | 0.3979E-02 | 6 | 30 | 6 | 24 | | 30 | 7 | 23 | 1172.2780 | | 0.9139E-04 |
| 4 | 10 | 3 | 7 | | 11 | 2 | 9 | 1168.8977 | | 0.8008E-03 | 6 | 15 | 2 | 14 | | 16 | 3 | 13 | 1172.3191 | 0.0003 | 0.1150E-01 |
| 4 | 13 | 1 | 13 | | 13 | 0 | 13 | 1168.9646 | -0.0001 | 0.3613E-01 | 4 | 27 | 3 | 25 | | 27 | 2 | 25 | 1172.3287 | | 0.8738E-03 |
| 6 | 21 | 2 | 19 | | 22 | 3 | 20 | 1169.3054 | 0.0004 | 0.4981E-02 | 4 | 21 | 1 | 21 | | 20 | 2 | 19 | 1172.3767 | 0.0010 | 0.2537E-02 |
| 4 | 1 | 1 | 0 | | 2 | 0 | 2 | 1169.3203 | | 0.2145E-02 | 4 | 18 | 2 | 17 | | 18 | 1 | 17 | 1172.3860 | 0.0000 | 0.2806E-01 |
| 6 | 18 | 2 | 15 | | 17 | 3 | 14 | 1169.3861 | 0.0004 | 0.9226E-02 | 4 | 16 | 5 | 11 | | 17 | 4 | 13 | 1172.4084 | | 0.2378E-03 |
| 4 | 17 | 1 | 17 | | 18 | 2 | 15 | 1169.4348 | -0.0004 | 0.5029E-02 | 4 | 16 | 5 | 12 | | 17 | 4 | 14 | 1172.4519 | | 0.2486E-03 |
| 4 | 12 | 1 | 12 | | 12 | 0 | 12 | 1169.4502 | -0.0002 | 0.3715E-01 | 4 | 6 | 1 | 6 | | 6 | 0 | 6 | 1172.5255 | 0.0000 | 0.2817E-01 |
| 4 | 28 | 2 | 25 | | 25 | 3 | 23 | 1169.5837 | | 0.3062E-02 | 8 | 29 | 6 | 23 | | 29 | 7 | 22 | 1172.5601 | | 0.1239E-03 |
| 4 | 20 | 6 | 14 | | 21 | 5 | 18 | 1169.6262 | | 0.7539E-04 | 6 | 30 | 6 | 25 | | 30 | 7 | 24 | 1172.6613 | | 0.9628E-04 |
| 4 | 20 | 6 | 15 | | 21 | 5 | 17 | 1169.6327 | | 0.7568E-04 | 6 | 18 | 2 | 16 | | 19 | 3 | 17 | 1172.8140 | 0.0006 | 0.8890E-02 |
| 4 | 20 | 2 | 19 | | 20 | 1 | 19 | 1169.6584 | 0.0000 | 0.2293E-01 | 8 | 28 | 6 | 22 | | 28 | 7 | 21 | 1172.8297 | | 0.1656E-03 |
| 6 | 5 | 5 | 1 | | 6 | 6 | 0 | 1169.7574 | -0.0002 | 0.3448E-02 | 8 | 11 | 3 | 9 | | 12 | 4 | 8 | 1172.8689 | -0.0004 | 0.5099E-02 |
| 6 | 5 | 5 | 0 | | 6 | 6 | 1 | 1169.7574 | -0.0002 | 0.3448E-02 | 8 | 29 | 6 | 24 | | 29 | 7 | 23 | 1172.8811 | | 0.1298E-03 |
| 4 | 17 | 5 | 12 | | 18 | 4 | 14 | 1169.8099 | | 0.2250E-03 | 4 | 9 | 3 | 7 | | 10 | 2 | 9 | 1172.9061 | | 0.7193E-03 |
| 4 | 17 | 5 | 13 | | 18 | 4 | 15 | 1169.8809 | | 0.2406E-03 | 8 | 11 | 3 | 8 | | 12 | 4 | 9 | 1172.9232 | 0.0000 | 0.5111E-02 |
| 4 | 7 | 2 | 6 | | 8 | 1 | 8 | 1169.9532 | 0.0013 | 0.4440E-02 | 4 | 22 | 1 | 22 | | 21 | 2 | 20 | 1172.9290 | | 0.2060E-02 |
| 4 | 11 | 1 | 11 | | 11 | 0 | 11 | 1169.9617 | -0.0002 | 0.3745E-01 | 4 | 5 | 1 | 5 | | 5 | 0 | 5 | 1172.9535 | -0.0001 | 0.2457E-01 |
| 4 | 28 | 3 | 26 | | 28 | 2 | 28 | 1170.1582 | | 0.7017E-03 | 8 | 27 | 6 | 21 | | 27 | 7 | 20 | 1173.0881 | | 0.2184E-03 |
| 4 | 5 | 0 | 5 | | 4 | 1 | 3 | 1170.1650 | 0.0000 | 0.3504E-01 | 6 | 28 | 6 | 23 | | 28 | 7 | 22 | 1173.0977 | | 0.1727E-03 |
| 4 | 27 | 2 | 26 | | 26 | 3 | 24 | 1170.1852 | | 0.2317E-02 | 4 | 12 | 1 | 11 | | 11 | 2 | 9 | 1173.1465 | 0.0000 | 0.1301E-01 |
| 4 | 18 | 1 | 18 | | 17 | 2 | 18 | 1170.2878 | -0.0002 | 0.4339E-02 | 6 | 27 | 6 | 22 | | 27 | 7 | 21 | 1173.3105 | | 0.2268E-03 |
| 8 | 12 | 3 | 10 | | 13 | 4 | 9 | 1170.3634 | -0.0005 | 0.4481E-02 | 4 | 4 | 2 | 2 | | 5 | 1 | 4 | 1173.3157 | -0.0001 | 0.4432E-02 |
| 6 | 20 | 2 | 18 | | 21 | 3 | 19 | 1170.3708 | 0.0002 | 0.6102E-02 | 4 | 4 | 1 | 4 | | 4 | 0 | 4 | 1173.3267 | 0.0000 | 0.2059E-01 |
| 4 | 5 | 2 | 3 | | 8 | 1 | 5 | 1170.4089 | 0.0000 | 0.5862E-02 | 6 | 26 | 6 | 20 | | 28 | 7 | 19 | 1173.3359 | 0.2841E-03 | |
| 6 | 12 | 3 | 9 | | 13 | 4 | 10 | 1170.4541 | -0.0001 | 0.4498E-02 | 6 | 7 | 4 | 3 | | 8 | 5 | 4 | 1173.3390 | -0.0006 | 0.1460E-01 |
| 4 | 10 | 3 | 8 | | 11 | 2 | 10 | 1170.4844 | | 0.6828E-03 | 6 | 7 | 4 | 4 | | 8 | 5 | 3 | 1173.3390 | -0.0006 | 0.1460E-01 |
| 4 | 10 | 1 | 10 | | 10 | 0 | 10 | 1170.4895 | 0.0000 | 0.3698E-01 | 4 | 23 | 1 | 23 | | 22 | 2 | 21 | 1173.4164 | 0.1650E-02 | |

| | J | Ka | Kc | -J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|---|----|----|----|----|-----|-----------|----------|------------|
| 4 | 4 | 3 | 3 | 6 | 6 | 10 | 15.6 | 15.7 | 9.1928E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | 9 | 15.11 | 15.7 | 0.8345E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | 8 | 14.8 | 14.7 | 0.1904E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | 7 | 14.6 | 14.7 | 0.1143E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | 6 | 14.4 | 14.1 | 0.2063E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | 5 | 14.2 | 13.9 | 0.2023E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | 4 | 14.0 | 13.1 | -0.0001 |
| 4 | 4 | 3 | 3 | 6 | 6 | 3 | 13.8 | 12.3 | 0.1300E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | 2 | 13.6 | 12.1 | 0.5225E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | 1 | 13.4 | 12.0 | 0.1822E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | 0 | 13.2 | 11.9 | 0.1951E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -1 | 13.0 | 11.8 | 0.3407E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -2 | 12.8 | 11.6 | 0.1756E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | -3 | 12.6 | 11.5 | 0.9751E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -4 | 12.4 | 11.4 | 0.0005 |
| 4 | 4 | 3 | 3 | 6 | 6 | -5 | 12.2 | 11.3 | 0.0006 |
| 4 | 4 | 3 | 3 | 6 | 6 | -6 | 12.0 | 11.2 | 0.0012 |
| 4 | 4 | 3 | 3 | 6 | 6 | -7 | 11.8 | 11.1 | 0.1745E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -8 | 11.6 | 11.0 | 0.1289E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -9 | 11.4 | 10.9 | 0.2110E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -10 | 11.2 | 10.8 | 0.6097E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -11 | 11.0 | 10.7 | 0.2062E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -12 | 10.8 | 10.6 | 0.2894E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -13 | 10.6 | 10.5 | 0.1400E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -14 | 10.4 | 10.4 | 0.1810E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -15 | 10.2 | 10.3 | 0.3390E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | -16 | 10.0 | 10.2 | 0.8106E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -17 | 9.8 | 10.1 | 0.8106E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -18 | 9.6 | 10.0 | 0.1285E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -19 | 9.4 | 9.9 | 0.1400E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -20 | 9.2 | 9.8 | 0.1300E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -21 | 9.0 | 9.7 | 0.1103E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -22 | 8.8 | 9.6 | 0.4903E-02 |
| 4 | 4 | 3 | 3 | 6 | 6 | -23 | 8.6 | 9.5 | 0.1654E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -24 | 8.4 | 9.4 | 0.1195E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | -25 | 8.2 | 9.3 | 0.8743E-04 |
| 4 | 4 | 3 | 3 | 6 | 6 | -26 | 8.0 | 9.2 | 0.4641E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | -27 | 7.8 | 9.1 | 0.8240E-04 |
| 4 | 4 | 3 | 3 | 6 | 6 | -28 | 7.6 | 9.0 | 0.5187E-04 |
| 4 | 4 | 3 | 3 | 6 | 6 | -29 | 7.4 | 8.9 | 0.6560E-04 |
| 4 | 4 | 3 | 3 | 6 | 6 | -30 | 7.2 | 8.8 | 0.1076E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -31 | 7.0 | 8.7 | 0.3734E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -32 | 6.8 | 8.6 | 0.1076E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -33 | 6.6 | 8.5 | 0.3506E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | -34 | 6.4 | 8.4 | 0.2485E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -35 | 6.2 | 8.3 | 1177.5741 |
| 4 | 4 | 3 | 3 | 6 | 6 | -36 | 6.0 | 8.2 | 0.0000 |
| 4 | 4 | 3 | 3 | 6 | 6 | -37 | 5.8 | 8.1 | 0.5187E-04 |
| 4 | 4 | 3 | 3 | 6 | 6 | -38 | 5.6 | 8.0 | 0.1076E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -39 | 5.4 | 7.9 | 0.3734E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -40 | 5.2 | 7.8 | 0.1076E-03 |
| 4 | 4 | 3 | 3 | 6 | 6 | -41 | 5.0 | 7.7 | 0.3506E-01 |
| 4 | 4 | 3 | 3 | 6 | 6 | -42 | 4.8 | 7.6 | 1177.4256 |
| 4 | 4 | 3 | 3 | 6 | 6 | -43 | 4.6 | 7.5 | 1177.4941 |
| 4 | 4 | 3 | 3 | 6 | 6 | -44 | 4.4 | 7.4 | 1177.4955 |
| 4 | 4 | 3 | 3 | 6 | 6 | -45 | 4.2 | 7.3 | 1177.5291 |
| 4 | 4 | 3 | 3 | 6 | 6 | -46 | 4.0 | 7.2 | 1177.5741 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 4 | 14 | 5 | 10 | | 15 | 4 | 12 | 1177.5891 | | 0.2530E-03 | 6 | 30 | 5 | 26 | | 30 | 6 | 25 | 1181.4758 | | 0.8998E-04 |
| 4 | 3 | 2 | 2 | | 4 | 1 | 4 | 1177.7601 | -0.0002 | 0.2427E-02 | 6 | 30 | 5 | 25 | | 30 | 6 | 24 | 1181.5421 | | 0.7046E-04 |
| 4 | 7 | 3 | 5 | | 8 | 2 | 7 | 1177.7968 | | 0.6901E-03 | 6 | 29 | 5 | 25 | | 29 | 6 | 24 | 1181.6481 | | 0.9427E-04 |
| 8 | 9 | 3 | 7 | | 10 | 4 | 6 | 1177.8492 | -0.0003 | 0.6310E-02 | 4 | 22 | 6 | 22 | | 21 | 1 | 20 | 1181.6637 | 0.0002 | 0.8597E-02 |
| 8 | 9 | 3 | 8 | | 10 | 4 | 7 | 1177.8658 | -0.0003 | 0.6314E-02 | 6 | 29 | 5 | 24 | | 29 | 6 | 23 | 1181.6833 | | 0.9483E-04 |
| 4 | 14 | 1 | 13 | | 13 | 2 | 11 | 1177.9175 | -0.0001 | 0.1264E-01 | 4 | 3 | 1 | 2 | | 2 | 0 | 2 | 1181.7628 | 0.0000 | 0.9720E-02 |
| 8 | 13 | 2 | 12 | | 14 | 3 | 11 | 1177.9371 | 0.0004 | 0.1686E-01 | 4 | 14 | 0 | 14 | | 13 | 1 | 12 | 1181.7903 | 0.0012 | 0.3080E-01 |
| 4 | 10 | 0 | 10 | | 9 | 1 | 8 | 1178.2343 | 0.0000 | 0.4507E-01 | 4 | 10 | 2 | 9 | | 10 | 1 | 9 | 1181.7924 | -0.0009 | 0.3442E-01 |
| 8 | 6 | 4 | 1 | | 6 | 5 | 2 | 1178.2743 | -0.0004 | 0.1659E-01 | 4 | 9 | 4 | 5 | | 10 | 3 | 7 | 1181.8052 | | 0.2247E-03 |
| 8 | 5 | 4 | 2 | | 6 | 5 | 1 | 1178.2743 | -0.0004 | 0.1659E-01 | 6 | 28 | 5 | 24 | | 28 | 6 | 23 | 1181.8134 | | 0.1253E-03 |
| 4 | 30 | 0 | 30 | | 29 | 1 | 28 | 1178.3383 | | 0.7312E-03 | 6 | 28 | 5 | 23 | | 28 | 6 | 22 | 1181.8278 | | 0.1280E-03 |
| 4 | 24 | 3 | 22 | | 24 | 2 | 22 | 1178.5480 | 0.0005 | 0.1553E-02 | 4 | 9 | 4 | 6 | | 10 | 3 | 8 | 1181.8480 | | 0.2827E-03 |
| 4 | 29 | 0 | 29 | | 28 | 1 | 27 | 1178.6853 | | 0.9992E-03 | 6 | 27 | 5 | 22 | | 27 | 6 | 21 | 1181.9738 | | 0.1654E-03 |
| 4 | 13 | 2 | 12 | | 13 | 1 | 12 | 1178.8952 | 0.0000 | 0.3672E-01 | 6 | 27 | 5 | 23 | | 27 | 6 | 22 | 1181.9791 | | 0.1843E-03 |
| 4 | 2 | 2 | 0 | | 3 | 1 | 2 | 1178.9319 | | 0.1339E-02 | 4 | 21 | 0 | 21 | | 20 | 1 | 19 | 1182.0336 | -0.0001 | 0.8306E-02 |
| 6 | 14 | 2 | 12 | | 15 | 3 | 13 | 1179.0446 | 0.0002 | 0.1667E-01 | 4 | 23 | 2 | 21 | | 22 | 3 | 19 | 1182.0760 | -0.0004 | 0.8572E-02 |
| 4 | 28 | 0 | 28 | | 27 | 1 | 28 | 1179.0653 | | 0.1350E-02 | 6 | 27 | 1 | 26 | | 28 | 2 | 27 | 1182.1047 | | 0.1084E-02 |
| 4 | 2 | 1 | 1 | | 0 | 1 | 1 | 1179.1547 | -0.0001 | 0.7394E-02 | 6 | 28 | 5 | 21 | | 26 | 6 | 20 | 1182.1208 | | 0.2143E-03 |
| 4 | 10 | 4 | 6 | | 11 | 3 | 8 | 1179.1873 | | 0.1586E-03 | 4 | 18 | 1 | 15 | | 15 | 2 | 13 | 1182.1235 | 0.0000 | 0.1105E-01 |
| 4 | 10 | 4 | 7 | | 11 | 3 | 9 | 1179.2645 | | 0.2135E-03 | 6 | 28 | 5 | 22 | | 26 | 6 | 21 | 1182.1479 | | 0.2118E-03 |
| 6 | 29 | 1 | 28 | | 30 | 2 | 29 | 1179.3499 | | 0.5983E-03 | 4 | 15 | 0 | 15 | | 14 | 1 | 13 | 1182.2460 | 0.0001 | 0.2658E-01 |
| 4 | 11 | 0 | 11 | | 10 | 1 | 9 | 1179.3843 | 0.0000 | 0.4250E-01 | 6 | 25 | 5 | 20 | | 25 | 6 | 19 | 1182.2670 | | 0.2740E-03 |
| 4 | 22 | 2 | 20 | | 21 | 3 | 18 | 1179.4504 | -0.0003 | 0.1021E-01 | 6 | 24 | 5 | 20 | | 24 | 6 | 19 | 1182.2722 | | 0.3088E-03 |
| 4 | 27 | 0 | 27 | | 28 | 1 | 25 | 1179.4749 | | 0.1805E-02 | 6 | 29 | 2 | 28 | | 30 | 1 | 29 | 1182.3171 | | 0.1549E-02 |
| 4 | 12 | 2 | 11 | | 12 | 1 | 11 | 1179.7982 | 0.0000 | 0.3585E-01 | 4 | 20 | 0 | 20 | | 19 | 1 | 18 | 1182.3398 | 0.0002 | 0.1036E-01 |
| 4 | 2 | 2 | 1 | | 3 | 1 | 3 | 1179.8981 | -0.0003 | 0.1205E-02 | 4 | 22 | 3 | 20 | | 22 | 2 | 20 | 1182.3480 | | 0.2132E-02 |
| 4 | 26 | 0 | 26 | | 25 | 1 | 24 | 1179.9080 | 0.0003 | 0.2386E-02 | 6 | 25 | 5 | 21 | | 25 | 6 | 20 | 1182.3486 | | 0.2809E-03 |
| 4 | 6 | 3 | 3 | | 7 | 2 | 5 | 1179.9620 | | 0.8294E-03 | 6 | 24 | 5 | 19 | | 24 | 6 | 18 | 1182.4121 | | 0.3458E-03 |
| 4 | 16 | 6 | 10 | | 17 | 5 | 12 | 1180.0945 | | 0.1170E-03 | 6 | 23 | 5 | 19 | | 23 | 6 | 18 | 1182.5201 | | 0.4270E-03 |
| 4 | 16 | 6 | 11 | | 17 | 5 | 13 | 1180.0953 | | 0.1170E-03 | 4 | 16 | 0 | 16 | | 15 | 1 | 14 | 1182.5385 | 0.0001 | 0.2258E-01 |
| 4 | 15 | 1 | 14 | | 14 | 2 | 12 | 1180.1003 | -0.0001 | 0.1197E-01 | 6 | 23 | 5 | 18 | | 23 | 6 | 17 | 1182.5553 | | 0.4306E-03 |
| 4 | 13 | 5 | 8 | | 14 | 4 | 10 | 1180.1422 | | 0.2453E-03 | 4 | 5 | 3 | 2 | | 6 | 2 | 4 | 1182.5582 | | 0.4995E-03 |
| 4 | 13 | 5 | 9 | | 14 | 4 | 11 | 1180.1506 | | 0.2480E-03 | 4 | 19 | 0 | 19 | | 18 | 1 | 17 | 1182.5818 | 0.0000 | 0.1280E-01 |
| 6 | 13 | 1 | 13 | | 14 | 2 | 12 | 1180.2236 | 0.0000 | 0.2820E-02 | 4 | 9 | 2 | 8 | | 9 | 1 | 8 | 1182.6746 | 0.0015 | 0.3285E-01 |
| 4 | 6 | 3 | 4 | | 7 | 2 | 6 | 1180.2567 | | 0.8132E-03 | 4 | 17 | 0 | 17 | | 16 | 1 | 15 | 1182.6787 | -0.0027 | 0.1891E-01 |
| 6 | 8 | 3 | 6 | | 9 | 4 | 5 | 1180.3273 | 0.0001 | 0.8866E-02 | 6 | 22 | 5 | 18 | | 22 | 6 | 17 | 1182.6794 | | 0.5277E-03 |
| 6 | 8 | 3 | 5 | | 9 | 4 | 6 | 1180.3356 | -0.0004 | 0.8869E-02 | 4 | 18 | 0 | 16 | | 17 | 1 | 16 | 1182.6809 | | 0.1564E-01 |
| 4 | 25 | 0 | 25 | | 24 | 1 | 23 | 1180.3560 | | 0.3123E-02 | 4 | 15 | 6 | 10 | | 16 | 5 | 11 | 1182.6844 | | 0.1246E-03 |
| 4 | 12 | 0 | 12 | | 11 | 1 | 10 | 1180.3617 | 0.0000 | 0.3904E-01 | 4 | 15 | 6 | 10 | | 16 | 5 | 12 | 1182.6844 | | 0.1247E-03 |
| 4 | 23 | 3 | 21 | | 23 | 2 | 21 | 1180.4890 | 0.0002 | 0.1832E-02 | 6 | 22 | 5 | 17 | | 22 | 6 | 18 | 1182.6957 | | 0.5290E-03 |
| 6 | 12 | 2 | 11 | | 13 | 3 | 10 | 1180.6442 | 0.0003 | 0.1941E-01 | 4 | 12 | 5 | 7 | | 13 | 4 | 9 | 1182.7009 | | 0.2358E-03 |
| 6 | 4 | 4 | 1 | | 5 | 5 | 0 | 1180.7330 | -0.0005 | 0.1758E-01 | 4 | 12 | 5 | 8 | | 13 | 4 | 10 | 1182.7054 | | 0.2373E-03 |
| 6 | 4 | 4 | 0 | | 5 | 5 | 1 | 1180.7330 | -0.0005 | 0.1758E-01 | 4 | 5 | 3 | 3 | | 6 | 2 | 5 | 1182.7209 | | 0.4925E-03 |
| 6 | 28 | 1 | 27 | | 29 | 2 | 28 | 1180.7513 | | 0.8041E-03 | 6 | 7 | 3 | 5 | | 8 | 4 | 4 | 1182.7987 | 0.0016 | 0.7369E-02 |
| 4 | 24 | 0 | 24 | | 23 | 1 | 22 | 1180.8078 | 0.0004 | 0.4046E-02 | 6 | 7 | 3 | 4 | | 8 | 4 | 5 | 1182.8025 | -0.0021 | 0.7370E-02 |
| 4 | 11 | 2 | 10 | | 11 | 1 | 10 | 1180.8322 | -0.0002 | 0.3542E-01 | 6 | 21 | 5 | 17 | | 21 | 6 | 16 | 1182.8243 | | 0.8401E-03 |
| 6 | 13 | 2 | 11 | | 14 | 3 | 12 | 1180.8831 | 0.0002 | 0.1898E-01 | 6 | 12 | 2 | 10 | | 13 | 3 | 11 | 1182.8265 | 0.0001 | 0.2134E-01 |
| 6 | 29 | 1 | 29 | | 30 | 0 | 30 | 1181.0867 | | 0.1202E-02 | 6 | 21 | 5 | 16 | | 21 | 6 | 15 | 1182.8330 | | 0.8407E-03 |
| 4 | 13 | 0 | 13 | | 12 | 1 | 11 | 1181.1838 | 0.0001 | 0.3504E-01 | 6 | 20 | 5 | 18 | | 20 | 6 | 15 | 1182.9618 | | 0.7648E-03 |
| 4 | 23 | 0 | 23 | | 22 | 1 | 21 | 1181.2490 | 0.0006 | 0.5191E-02 | 6 | 20 | 5 | 15 | | 20 | 6 | 14 | 1182.9667 | | 0.7652E-03 |
| 6 | 29 | 0 | 29 | | 30 | 1 | 30 | 1181.2595 | | 0.3561E-02 | 6 | 19 | 5 | 15 | | 19 | 6 | 14 | 1183.0934 | 0.0011 | 0.9002E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|------------|------------|---|----|----|----|----|---|-----------|-----------|------------|------------|----------|
| 6 | 19 | 5 | 14 | 19 | 6 | 13 | | 1183.0982 | -0.0017 | 0.9004E-03 | 6 | 6 | 3 | 4 | 7 | 4 | 3 | 1185.2642 | 0.0010 | 0.7807E-02 | |
| 6 | 28 | 1 | 28 | 29 | 0 | 29 | | 1183.1003 | 0.1653E-02 | | 6 | 6 | 3 | 3 | 7 | 4 | 4 | 1185.2656 | -0.0005 | 0.7808E-02 | |
| 6 | 18 | 5 | 14 | 18 | 6 | 13 | | 1183.2197 | 0.0010 | 0.1043E-02 | 6 | 27 | 0 | 27 | 28 | 1 | 28 | 1185.2701 | 0.6868E-02 | | |
| 6 | 18 | 5 | 13 | 18 | 6 | 12 | | 1183.2212 | -0.0008 | 0.1044E-02 | 4 | 5 | 2 | 4 | 5 | 1 | 4 | 1185.3658 | 0.0000 | 0.2131E-01 | |
| 6 | 28 | 0 | 28 | 29 | 1 | 29 | | 1183.2478 | 0.4911E-02 | | 4 | 18 | 1 | 17 | 17 | 2 | 15 | 1185.6271 | 0.0001 | 0.8724E-02 | |
| 6 | 11 | 2 | 10 | 12 | 3 | 9 | | 1183.2969 | 0.0003 | 0.2214E-01 | 4 | 20 | 3 | 18 | 20 | 2 | 18 | 1185.7858 | -0.0002 | 0.2779E-02 | |
| 6 | 17 | 5 | 13 | 17 | 6 | 12 | | 1183.3406 | 0.0007 | 0.1190E-02 | 4 | 4 | 2 | 3 | 4 | 1 | 3 | 1185.8199 | 0.0000 | 0.1723E-01 | |
| 6 | 17 | 5 | 12 | 17 | 6 | 11 | | 1183.3414 | -0.0002 | 0.1190E-02 | 6 | 24 | 1 | 23 | 25 | 2 | 24 | 1185.8806 | -0.0025 | 0.2240E-02 | |
| 6 | 26 | 1 | 25 | 27 | 2 | 26 | | 1183.4091 | 0.1385E-02 | | 6 | 10 | 2 | 9 | 11 | 3 | 8 | 1185.9041 | 0.0001 | 0.2477E-01 | |
| 6 | 16 | 5 | 12 | 16 | 6 | 11 | | 1183.4561 | 0.0007 | 0.1335E-02 | 4 | 3 | 2 | 2 | 3 | 1 | 2 | 1186.1843 | 0.0000 | 0.1265E-01 | |
| 6 | 16 | 5 | 11 | 16 | 6 | 10 | | 1183.4585 | 0.0002 | 0.1335E-02 | 4 | 2 | 2 | 1 | 2 | 1 | 1 | 1186.4580 | 0.0002 | 0.7335E-02 | |
| 4 | 8 | 2 | 7 | 8 | 1 | 7 | | 1183.4753 | -0.0001 | 0.3072E-01 | 4 | 30 | 4 | 27 | 30 | 3 | 27 | 1186.8864 | 0.5723E-03 | | |
| 6 | 15 | 5 | 11 | 15 | 6 | 10 | | 1183.5866 | 0.0004 | 0.1471E-02 | 4 | 25 | 2 | 23 | 24 | 3 | 21 | 1186.8951 | -0.0003 | 0.5729E-02 | |
| 6 | 15 | 5 | 10 | 15 | 6 | 9 | | 1183.5882 | 0.0001 | 0.1472E-02 | 4 | 7 | 4 | 3 | 8 | 3 | 5 | 1186.9427 | 0.3081E-03 | | |
| 6 | 14 | 5 | 10 | 14 | 6 | 9 | | 1183.6700 | 0.0003 | 0.1591E-02 | 4 | 2 | 2 | 0 | 2 | 1 | 2 | 1186.9436 | 0.0002 | 0.6961E-02 | |
| 6 | 14 | 5 | 9 | 14 | 6 | 8 | | 1183.6703 | 0.0001 | 0.1591E-02 | 4 | 7 | 4 | 4 | 8 | 3 | 6 | 1186.9535 | 0.3194E-03 | | |
| 6 | 13 | 5 | 9 | 13 | 6 | 8 | | 1183.7684 | 0.0001 | 0.1684E-02 | 6 | 10 | 2 | 8 | 11 | 3 | 9 | 1186.9969 | 0.0003 | 0.2596E-01 | |
| 6 | 13 | 5 | 8 | 13 | 6 | 7 | | 1183.7684 | 0.0000 | 0.1684E-02 | 6 | 27 | 2 | 26 | 28 | 1 | 27 | 1187.0115 | 0.2378E-02 | | |
| 6 | 12 | 5 | 8 | 12 | 6 | 7 | | 1183.8604 | 0.0000 | 0.1739E-02 | 6 | 23 | 1 | 22 | 24 | 2 | 23 | 1187.0585 | -0.0022 | 0.2784E-02 | |
| 6 | 12 | 5 | 7 | 12 | 6 | 6 | | 1183.8605 | 0.0000 | 0.1739E-02 | 4 | 19 | 1 | 18 | 18 | 2 | 16 | 1187.0795 | 0.0001 | 0.7473E-02 | |
| 6 | 11 | 5 | 6 | 11 | 6 | 5 | | 1183.9462 | 0.0000 | 0.1747E-02 | 4 | 3 | 2 | 1 | 3 | 1 | 3 | 1187.1622 | 0.0003 | 0.1139E-01 | |
| 6 | 11 | 5 | 7 | 11 | 6 | 6 | | 1183.9462 | 0.0000 | 0.1747E-02 | 4 | 5 | 1 | 4 | 4 | 0 | 4 | 1187.1718 | 0.0001 | 0.1336E-01 | |
| 4 | 17 | 1 | 16 | 16 | 2 | 14 | | 1183.9707 | 0.0001 | 0.9940E-02 | 6 | 26 | 1 | 26 | 27 | 0 | 27 | 1187.2108 | 0.2948E-02 | | |
| 6 | 10 | 5 | 6 | 10 | 6 | 5 | | 1184.0254 | 0.0000 | 0.1694E-02 | 6 | 26 | 0 | 26 | 27 | 1 | 27 | 1187.3188 | -0.0019 | 0.8913E-02 | |
| 6 | 10 | 5 | 5 | 10 | 6 | 4 | | 1184.0254 | 0.0000 | 0.1694E-02 | 4 | 19 | 3 | 17 | 19 | 2 | 17 | 1187.3485 | -0.0005 | 0.3112E-02 | |
| 6 | 9 | 5 | 4 | 9 | 6 | 3 | | 1184.0980 | 0.0001 | 0.1569E-02 | 4 | 4 | 2 | 2 | 4 | 1 | 4 | 1187.4648 | 0.0001 | 0.1444E-01 | |
| 6 | 9 | 5 | 5 | 9 | 6 | 4 | | 1184.0980 | 0.0001 | 0.1569E-02 | 4 | 3 | 3 | 0 | 4 | 2 | 2 | 1187.6123 | 0.1552E-03 | | |
| 4 | 21 | 3 | 19 | 21 | 2 | 19 | | 1184.1163 | -0.0001 | 0.2450E-02 | 4 | 3 | 3 | 1 | 4 | 2 | 3 | 1187.8478 | 0.1547E-03 | | |
| 6 | 8 | 5 | 4 | 8 | 8 | 3 | | 1184.1638 | -0.0002 | 0.1356E-02 | 6 | 5 | 3 | 3 | 6 | 4 | 2 | 1187.7238 | 0.0000 | 0.8181E-02 | |
| 6 | 8 | 5 | 3 | 8 | 6 | 2 | | 1184.1638 | -0.0002 | 0.1356E-02 | 6 | 5 | 3 | 2 | 6 | 4 | 3 | 1187.7242 | -0.0005 | 0.8181E-02 | |
| 4 | 7 | 2 | 6 | 7 | 1 | 6 | | 1184.1921 | 0.0001 | 0.2807E-01 | 4 | 10 | 5 | 5 | 11 | 4 | 7 | 1187.7897 | 0.1974E-03 | | |
| 6 | 7 | 5 | 2 | 7 | 6 | 1 | | 1184.2227 | -0.0004 | 0.1040E-02 | 4 | 10 | 5 | 6 | 11 | 4 | 8 | 1187.7908 | 0.1977E-03 | | |
| 6 | 7 | 5 | 3 | 7 | 6 | 2 | | 1184.2227 | -0.0004 | 0.1040E-02 | 4 | 30 | 1 | 29 | 29 | 2 | 27 | 1187.8186 | 0.3572E-03 | | |
| 6 | 6 | 5 | 2 | 8 | 6 | 1 | | 1184.2744 | -0.0007 | 0.5988E-03 | 4 | 13 | 6 | 7 | 14 | 5 | 9 | 1187.8311 | 0.1318E-03 | | |
| 6 | 6 | 5 | 1 | 6 | 6 | 0 | | 1184.2744 | -0.0007 | 0.5988E-03 | 4 | 13 | 6 | 8 | 14 | 5 | 10 | 1187.8312 | 0.1318E-03 | | |
| 4 | 8 | 4 | 4 | 9 | 3 | 6 | | 1184.3885 | 0.2800E-03 | | 4 | 2 | 3 | 5 | 1 | 5 | 1187.8607 | 0.0002 | 0.1629E-01 | | |
| 4 | 8 | 4 | 5 | 9 | 3 | 7 | | 1184.4109 | 0.3027E-03 | | 6 | 22 | 1 | 21 | 23 | 2 | 22 | 1188.2088 | -0.0019 | 0.3411E-02 | |
| 4 | 4 | 1 | 3 | 3 | 0 | 3 | | 1184.4335 | -0.0001 | 0.1175E-01 | 4 | 20 | 1 | 19 | 19 | 2 | 17 | 1188.3180 | 0.0004 | 0.6254E-02 | |
| 4 | 24 | 2 | 22 | 23 | 3 | 20 | | 1184.5659 | -0.0003 | 0.7073E-02 | 4 | 6 | 2 | 4 | 6 | 1 | 6 | 1188.3615 | 0.0001 | 0.1704E-01 | |
| 6 | 28 | 2 | 27 | 29 | 1 | 28 | | 1184.6206 | 0.1949E-02 | | 6 | 9 | 2 | 8 | 10 | 3 | 7 | 1188.4733 | 0.0000 | 0.2719E-01 | |
| 6 | 12 | 1 | 12 | 13 | 2 | 11 | | 1184.6394 | 0.0000 | 0.3766E-02 | 4 | 18 | 3 | 18 | 18 | 2 | 18 | 1188.7981 | 0.3443E-02 | | |
| 6 | 25 | 1 | 24 | 28 | 2 | 25 | | 1184.8863 | 0.1775E-02 | | 6 | 11 | 1 | 11 | 12 | 2 | 10 | 1188.8271 | -0.0003 | 0.4878E-02 | |
| 4 | 6 | 2 | 5 | 6 | 1 | 5 | | 1184.8228 | -0.0001 | 0.2492E-01 | 4 | 29 | 1 | 28 | 28 | 2 | 28 | 1188.8795 | 0.5123E-03 | | |
| 6 | 11 | 2 | 9 | 12 | 3 | 10 | | 1184.8676 | 0.0001 | 0.2369E-01 | 4 | 7 | 2 | 6 | 7 | 1 | 7 | 1188.9803 | 0.0000 | 0.1678E-01 | |
| 4 | 4 | 3 | 1 | 5 | 2 | 3 | | 1185.1030 | 0.3361E-03 | | 4 | 29 | 4 | 26 | 29 | 3 | 26 | 1189.0262 | 0.7495E-03 | | |
| 6 | 27 | 1 | 27 | 28 | 0 | 28 | | 1185.1481 | 0.2231E-02 | | 4 | 28 | 2 | 24 | 25 | 3 | 22 | 1189.0400 | -0.0003 | 0.4552E-02 | |
| 4 | 4 | 3 | 2 | 5 | 2 | 4 | | 1185.1857 | 0.3338E-03 | | 6 | 9 | 2 | 7 | 10 | 3 | 8 | 1189.2041 | 0.0001 | 0.2805E-01 | |
| 4 | 11 | 5 | 6 | 12 | 4 | 8 | | 1185.2501 | 0.2198E-03 | | 6 | 25 | 1 | 25 | 26 | 0 | 26 | 1189.2546 | 0.0051R | 0.3783E-02 | |
| 4 | 11 | 5 | 7 | 12 | 4 | 9 | | 1185.2524 | 0.2205E-03 | | 4 | 21 | 1 | 20 | 20 | 2 | 18 | 1189.3270 | 0.0005 | 0.5117E-02 | |
| 4 | 14 | 6 | 8 | 15 | 5 | 10 | | 1185.2829 | 0.1299E-03 | | 6 | 21 | 1 | 20 | 22 | 2 | 21 | 1189.3406 | -0.0018 | 0.4119E-02 | |
| 4 | 14 | 6 | 9 | 16 | 5 | 11 | | 1185.2631 | 0.1299E-03 | | 6 | 25 | 0 | 25 | 26 | 1 | 26 | 1189.3855 | -0.0018 | 0.1173E-01 | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 4 | 6 | 4 | 2 | | 7 | 3 | 4 | 1189.4722 | | 0.2933E-03 | 6 | 20 | 4 | 17 | | 20 | 5 | 16 | 1191.7830 | -0.0001 | 0.4761E-02 |
| 4 | 6 | 4 | 3 | | 7 | 3 | 5 | 1189.4771 | | 0.2978E-03 | 6 | 21 | 4 | 17 | | 21 | 5 | 16 | 1191.7942 | -0.0002 | 0.4010E-02 |
| 6 | 28 | 2 | 25 | | 27 | 1 | 28 | 1189.4955 | 0.0056R | 0.2809E-02 | 6 | 30 | 4 | 26 | | 30 | 5 | 25 | 1191.8568 | 0.4625E-03 | |
| 4 | 8 | 2 | 8 | | 8 | 1 | 8 | 1189.7321 | -0.0001 | 0.1569E-01 | 6 | 20 | 4 | 16 | | 20 | 5 | 15 | 1191.8657 | -0.0003 | 0.4780E-02 |
| 4 | 28 | 1 | 27 | | 27 | 2 | 25 | 1189.7388 | | 0.7242E-03 | 6 | 19 | 4 | 16 | | 19 | 5 | 15 | 1191.8862 | -0.0002 | 0.5604E-02 |
| 4 | 6 | 1 | 6 | | 6 | 0 | 5 | 1189.9836 | 0.0001 | 0.1447E-01 | 6 | 19 | 4 | 15 | | 19 | 5 | 14 | 1191.9418 | -0.0002 | 0.5619E-02 |
| 4 | 22 | 1 | 21 | | 21 | 2 | 19 | 1190.1042 | | 0.4096E-02 | 4 | 5 | 4 | 1 | | 6 | 3 | 3 | 1191.9807 | 0.2268E-03 | |
| 4 | 17 | 3 | 15 | | 17 | 2 | 15 | 1190.1285 | -0.0002 | 0.3761E-02 | 4 | 5 | 4 | 2 | | 6 | 3 | 4 | 1191.9825 | 0.2281E-03 | |
| 6 | 30 | 4 | 27 | | 30 | 5 | 28 | 1190.1635 | | 0.4298E-03 | 6 | 18 | 4 | 15 | | 18 | 5 | 14 | 1191.9843 | -0.0001 | 0.6498E-02 |
| 6 | 4 | 3 | 2 | | 5 | 4 | 1 | 1190.1781 | -0.0003 | 0.8509E-02 | 6 | 18 | 4 | 14 | | 18 | 5 | 13 | 1192.0208 | 0.0001 | 0.8510E-02 |
| 6 | 4 | 3 | 1 | | 5 | 4 | 2 | 1190.1782 | -0.0004 | 0.8509E-02 | 6 | 17 | 4 | 14 | | 17 | 5 | 13 | 1192.0774 | 0.0002 | 0.7422E-02 |
| 4 | 9 | 5 | 4 | | 10 | 4 | 6 | 1190.3198 | | 0.1690E-03 | 6 | 25 | 2 | 24 | | 26 | 1 | 25 | 1192.0787 | 0.3213E-02 | |
| 4 | 9 | 5 | 5 | | 10 | 4 | 7 | 1190.3202 | | 0.1691E-03 | 6 | 17 | 4 | 13 | | 17 | 5 | 12 | 1192.1008 | 0.0001 | 0.7430E-02 |
| 4 | 27 | 1 | 28 | | 28 | 2 | 24 | 1190.3837 | | 0.1008E-02 | 6 | 16 | 4 | 13 | | 16 | 5 | 12 | 1192.1683 | 0.0002 | 0.8343E-02 |
| 4 | 12 | 6 | 7 | | 13 | 5 | 9 | 1190.3888 | -0.0009 | 0.1297E-03 | 6 | 16 | 4 | 12 | | 16 | 5 | 11 | 1192.1808 | -0.0001 | 0.8349E-02 |
| 4 | 12 | 6 | 8 | | 13 | 5 | 8 | 1190.3888 | -0.0009 | 0.1297E-03 | 6 | 15 | 4 | 12 | | 15 | 5 | 11 | 1192.2507 | 0.0003 | 0.9223E-02 |
| 6 | 29 | 4 | 28 | | 29 | 5 | 25 | 1190.4065 | | 0.5821E-03 | 6 | 16 | 4 | 11 | | 15 | 5 | 10 | 1192.2595 | -0.0002 | 0.9227E-02 |
| 6 | 20 | 1 | 19 | | 21 | 2 | 20 | 1190.4655 | -0.0014 | 0.4908E-02 | 6 | 14 | 4 | 11 | | 14 | 5 | 10 | 1192.3311 | 0.0017 | 0.1002E-01 |
| 6 | 28 | 4 | 25 | | 28 | 5 | 24 | 1190.6238 | | 0.7774E-03 | 6 | 14 | 4 | 10 | | 14 | 5 | 9 | 1192.3361 | -0.0035 | 0.1002E-01 |
| 4 | 9 | 2 | 7 | | 9 | 1 | 9 | 1190.6323 | 0.0000 | 0.1398E-01 | 6 | 13 | 4 | 10 | | 13 | 5 | 9 | 1192.4070 | 0.0015 | 0.1068E-01 |
| 4 | 23 | 1 | 22 | | 22 | 2 | 20 | 1190.6418 | | 0.3212E-02 | 6 | 13 | 4 | 9 | | 13 | 5 | 8 | 1192.4098 | -0.0014 | 0.1068E-01 |
| 4 | 28 | 1 | 25 | | 25 | 2 | 23 | 1190.8037 | | 0.1382E-02 | 4 | 15 | 3 | 13 | | 15 | 2 | 13 | 1192.4161 | 0.4327E-02 | |
| 6 | 27 | 4 | 24 | | 27 | 5 | 23 | 1190.8187 | -0.0014 | 0.1024E-02 | 6 | 12 | 4 | 9 | | 12 | 5 | 8 | 1192.4786 | 0.0006 | 0.1116E-01 |
| 4 | 24 | 1 | 23 | | 23 | 2 | 21 | 1190.9373 | | 0.2470E-02 | 6 | 12 | 4 | 8 | | 12 | 5 | 7 | 1192.4801 | -0.0009 | 0.1115E-01 |
| 4 | 27 | 2 | 25 | | 26 | 3 | 23 | 1190.9785 | -0.0001 | 0.3546E-02 | 6 | 28 | 1 | 28 | | 28 | 2 | 27 | 1192.5212 | 0.9448E-04 | |
| 4 | 25 | 1 | 24 | | 24 | 2 | 22 | 1190.9904 | | 0.1864E-02 | 6 | 11 | 4 | 8 | | 11 | 5 | 7 | 1192.5457 | 0.0003 | 0.1136E-01 |
| 6 | 28 | 4 | 23 | | 26 | 5 | 22 | 1190.9944 | -0.0018 | 0.1330E-02 | 6 | 11 | 4 | 7 | | 11 | 5 | 6 | 1192.5465 | -0.0005 | 0.1136E-01 |
| 6 | 8 | 2 | 7 | | 9 | 3 | 6 | 1191.0117 | 0.0001 | 0.2930E-01 | 6 | 10 | 4 | 7 | | 10 | 5 | 5 | 1192.6082 | 0.0001 | 0.1126E-01 |
| 4 | 28 | 4 | 25 | | 28 | 3 | 25 | 1191.0269 | | 0.9700E-03 | 6 | 10 | 4 | 6 | | 10 | 5 | 5 | 1192.6085 | -0.0002 | 0.1126E-01 |
| 6 | 25 | 4 | 22 | | 25 | 5 | 21 | 1191.1538 | -0.0008 | 0.1703E-02 | 6 | 3 | 3 | 1 | | 4 | 4 | 0 | 1192.6271 | -0.0004 | 0.8845E-02 |
| 6 | 24 | 1 | 24 | | 25 | 6 | 25 | 1191.2029 | | 0.4593E-02 | 6 | 3 | 3 | 0 | | 4 | 4 | 1 | 1192.6271 | -0.0004 | 0.8845E-02 |
| 6 | 24 | 4 | 21 | | 24 | 5 | 20 | 1191.2994 | -0.0007 | 0.2151E-02 | 6 | 9 | 4 | 6 | | 9 | 5 | 5 | 1192.6656 | 0.0000 | 0.1079E-01 |
| 4 | 16 | 3 | 14 | | 18 | 2 | 14 | 1191.3356 | 0.0000 | 0.4059E-02 | 6 | 9 | 4 | 5 | | 9 | 5 | 4 | 1192.6658 | -0.0002 | 0.1079E-01 |
| 6 | 23 | 4 | 20 | | 23 | 5 | 19 | 1191.4333 | -0.0004 | 0.2679E-02 | 4 | 28 | 2 | 26 | | 27 | 3 | 24 | 1192.8901 | -0.0005 | 0.2707E-02 |
| 6 | 24 | 0 | 24 | | 25 | 1 | 25 | 1191.4624 | -0.0012 | 0.1521E-01 | 6 | 8 | 4 | 5 | | 8 | 5 | 4 | 1192.7180 | -0.0003 | 0.9878E-02 |
| 6 | 8 | 2 | 8 | | 9 | 3 | 7 | 1191.4771 | 0.0009 | 0.2990E-01 | 6 | 8 | 4 | 4 | | 8 | 5 | 3 | 1192.7181 | -0.0004 | 0.9878E-02 |
| 4 | 2 | 2 | 0 | | 1 | 1 | 0 | 1191.4803 | -0.0025 | 0.1424E-01 | 6 | 18 | 1 | 17 | | 19 | 2 | 18 | 1192.7377 | -0.0009 | 0.6687E-02 |
| 6 | 22 | 4 | 19 | | 22 | 5 | 18 | 1191.5578 | -0.0003 | 0.3291E-02 | 6 | 7 | 4 | 3 | | 7 | 5 | 2 | 1192.7651 | -0.0004 | 0.8456E-02 |
| 6 | 19 | 1 | 18 | | 20 | 2 | 19 | 1191.5941 | -0.0005 | 0.5785E-02 | 6 | 7 | 4 | 4 | | 7 | 5 | 3 | 1192.7651 | -0.0004 | 0.8456E-02 |
| 6 | 26 | 4 | 22 | | 26 | 5 | 21 | 1191.5998 | | 0.1367E-02 | 6 | 10 | 1 | 10 | | 11 | 2 | 9 | 1192.7953 | 0.0001 | 0.6121E-02 |
| 6 | 25 | 4 | 21 | | 25 | 5 | 20 | 1191.6060 | | 0.1738E-02 | 6 | 8 | 4 | 3 | | 8 | 5 | 2 | 1192.8066 | -0.0004 | 0.6439E-02 |
| 6 | 27 | 4 | 23 | | 27 | 5 | 22 | 1191.6172 | -0.0023 | 0.1061E-02 | 6 | 6 | 4 | 2 | | 6 | 5 | 1 | 1192.8068 | -0.0004 | 0.6439E-02 |
| 6 | 24 | 4 | 20 | | 24 | 5 | 19 | 1191.6323 | | 0.2184E-02 | 4 | 8 | 5 | 3 | | 9 | 4 | 5 | 1192.8398 | 0.1355E-03 | |
| 4 | 2 | 2 | 1 | | 1 | 1 | 1 | 1191.6392 | 0.0000 | 0.1400E-01 | 4 | 8 | 5 | 4 | | 9 | 4 | 6 | 1192.8400 | 0.1356E-03 | |
| 6 | 28 | 4 | 24 | | 28 | 5 | 23 | 1191.6632 | | 0.8141E-03 | 6 | 5 | 4 | 1 | | 5 | 5 | 0 | 1192.8427 | -0.0004 | 0.3699E-02 |
| 6 | 21 | 4 | 18 | | 21 | 5 | 17 | 1191.6738 | 0.0002 | 0.3987E-02 | 6 | 5 | 4 | 2 | | 5 | 5 | 1 | 1192.8427 | -0.0004 | 0.3699E-02 |
| 6 | 23 | 4 | 19 | | 23 | 5 | 18 | 1191.6747 | | 0.2710E-02 | 6 | 23 | 1 | 23 | | 24 | 0 | 24 | 1192.8611 | 0.0054R | 0.4820E-02 |
| 6 | 30 | 0 | 30 | | 30 | 1 | 29 | 1191.6920 | | 0.5745E-04 | 4 | 7 | 1 | 6 | | 6 | 0 | 6 | 1192.8788 | 0.0001 | 0.1504E-01 |
| 4 | 10 | 2 | 8 | | 10 | 1 | 10 | 1191.6984 | 0.0001 | 0.1190E-01 | 4 | 27 | 4 | 24 | | 27 | 3 | 24 | 1192.8823 | 0.1240E-02 | |
| 6 | 22 | 4 | 18 | | 22 | 5 | 17 | 1191.7297 | -0.0008 | 0.3318E-02 | 4 | 11 | 6 | 5 | | 12 | 5 | 7 | 1192.9362 | 0.1229E-03 | |
| 6 | 29 | 4 | 25 | | 29 | 5 | 24 | 1191.7418 | | 0.6172E-03 | 4 | 11 | 6 | 6 | | 12 | 5 | 8 | 1192.9362 | 0.1229E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|------------|------------|----------|
| 4 | 11 | 2 | 9 | 11 | 1 | 11 | | 1192.9395 | -0.0001 | 0.9669E-02 | 6 | 29 | 2 | 28 | 29 | 3 | 27 | 1198.5406 | | 0.9199E-03 | |
| 4 | 14 | 3 | 12 | 14 | 2 | 12 | | 1193.3693 | 0.0001 | 0.4555E-02 | 6 | 9 | 1 | 9 | 10 | 2 | 8 | 1198.5551 | -0.0001 | 0.7435E-02 | |
| 6 | 7 | 2 | 8 | 8 | 3 | 5 | | 1193.5250 | 0.0001 | 0.3103E-01 | 4 | 8 | 3 | 6 | 8 | 2 | 8 | 1198.6680 | 0.0003 | 0.4532E-02 | |
| 6 | 23 | 0 | 23 | 24 | 1 | 24 | | 1193.5424 | -0.0010 | 0.1943E-01 | 4 | 4 | 2 | 3 | 3 | 1 | 3 | 1198.8214 | 0.0001 | 0.1895E-01 | |
| 4 | 3 | 2 | 1 | 2 | 1 | 1 | | 1193.7242 | 0.0001 | 0.1625E-01 | 4 | 7 | 3 | 5 | 7 | 2 | 5 | 1198.9009 | 0.0001 | 0.4193E-02 | |
| 6 | 7 | 2 | 5 | 8 | 3 | 6 | | 1193.8040 | 0.0001 | 0.3141E-01 | 4 | 15 | 3 | 12 | 16 | 6 | 18 | 1198.9673 | | 0.2511E-03 | |
| 6 | 22 | 1 | 22 | 23 | 0 | 23 | | 1193.8874 | 0.0042R | 0.3618E-02 | 4 | 27 | 4 | 23 | 28 | 1 | 27 | 1197.0204 | | 0.1170E-02 | |
| 6 | 17 | 1 | 16 | 18 | 2 | 17 | | 1193.9069 | -0.0006 | 0.7657E-02 | 4 | 6 | 3 | 4 | 6 | 2 | 4 | 1197.0747 | 0.0004 | 0.3726E-02 | |
| 6 | 29 | 0 | 29 | 29 | 1 | 28 | | 1193.9818 | | 0.1429E-03 | 4 | 10 | 3 | 7 | 10 | 2 | 9 | 1197.1483 | 0.0002 | 0.4508E-02 | |
| 4 | 29 | 2 | 27 | 28 | 3 | 25 | | 1194.1569 | -0.0004 | 0.2024E-02 | 4 | 9 | 3 | 6 | 9 | 2 | 8 | 1197.1488 | | 0.4507E-02 | |
| 4 | 21 | 3 | 18 | 22 | 0 | 22 | | 1194.1844 | | 0.2086E-02 | 4 | 8 | 3 | 5 | 8 | 2 | 7 | 1197.1687 | 0.0007 | 0.4376E-02 | |
| 4 | 3 | 2 | 2 | 2 | 1 | 2 | | 1194.1960 | 0.0003 | 0.1545E-01 | 4 | 11 | 3 | 8 | 11 | 2 | 10 | 1197.1749 | | 0.4394E-02 | |
| 4 | 13 | 3 | 11 | 13 | 2 | 11 | | 1194.1967 | | 0.4735E-02 | 6 | 28 | 3 | 28 | 28 | 4 | 25 | 1197.1921 | | 0.4479E-03 | |
| 4 | 26 | 3 | 17 | 21 | 0 | 21 | | 1194.2668 | | 0.1253E-02 | 4 | 5 | 3 | 3 | 5 | 2 | 3 | 1197.2010 | 0.0004 | 0.3117E-02 | |
| 6 | 27 | 1 | 27 | 27 | 2 | 26 | | 1194.3444 | | 0.1786E-03 | 4 | 7 | 3 | 4 | 7 | 2 | 6 | 1197.2015 | | 0.4104E-02 | |
| 4 | 12 | 2 | 10 | 12 | 1 | 12 | | 1194.3749 | 0.0001 | 0.7510E-02 | 4 | 12 | 3 | 9 | 12 | 2 | 11 | 1197.2371 | 0.0013 | 0.4182E-02 | |
| 4 | 29 | 4 | 25 | 30 | 1 | 29 | | 1194.3831 | | 0.4189E-03 | 4 | 6 | 3 | 3 | 6 | 2 | 5 | 1197.2417 | | 0.3681E-02 | |
| 4 | 19 | 3 | 16 | 20 | 0 | 20 | | 1194.4152 | | 0.8353E-03 | 4 | 5 | 3 | 2 | 5 | 2 | 4 | 1197.2844 | 0.0006 | 0.3098E-02 | |
| 4 | 4 | 4 | 0 | 5 | 3 | 2 | | 1194.4714 | | 0.1155E-03 | 4 | 4 | 3 | 2 | 4 | 2 | 2 | 1197.2900 | | 0.2344E-02 | |
| 4 | 4 | 4 | 1 | 5 | 3 | 3 | | 1194.4720 | | 0.1157E-03 | 4 | 4 | 3 | 1 | 4 | 2 | 3 | 1197.3257 | 0.0006 | 0.2338E-02 | |
| 4 | 28 | 4 | 23 | 26 | 3 | 23 | | 1194.5884 | -0.0008 | 0.1567E-02 | 4 | 13 | 3 | 10 | 13 | 2 | 12 | 1197.3446 | 0.0000 | 0.3893E-02 | |
| 4 | 18 | 3 | 15 | 19 | 0 | 19 | | 1194.7383 | | 0.5978E-03 | 4 | 3 | 3 | 1 | 3 | 2 | 1 | 1197.3506 | | 0.1355E-02 | |
| 6 | 24 | 2 | 23 | 25 | 1 | 24 | | 1194.7659 | 0.0032 | 0.3580E-02 | 4 | 3 | 3 | 0 | 3 | 2 | 2 | 1197.3625 | | 0.1354E-02 | |
| 4 | 12 | 3 | 10 | 12 | 2 | 10 | | 1194.9020 | 0.0000 | 0.4855E-02 | 6 | 28 | 2 | 27 | 28 | 3 | 26 | 1197.4847 | 0.0073R | 0.1325E-02 | |
| 6 | 16 | 1 | 15 | 17 | 2 | 16 | | 1195.1113 | -0.0006 | 0.8859E-02 | 4 | 14 | 3 | 11 | 14 | 2 | 13 | 1197.5078 | 0.0002 | 0.3549E-02 | |
| 4 | 17 | 3 | 14 | 18 | 0 | 18 | | 1195.2846 | | 0.4441E-03 | 4 | 24 | 4 | 21 | 24 | 3 | 21 | 1197.5479 | -0.0004 | 0.2415E-02 | |
| 4 | 7 | 5 | 2 | 8 | 4 | 4 | | 1195.3500 | | 0.9842E-04 | 4 | 23 | 4 | 19 | 24 | 1 | 23 | 1197.5601 | | 0.3828E-02 | |
| 4 | 7 | 5 | 3 | 8 | 4 | 5 | | 1195.3501 | | 0.9843E-04 | 6 | 14 | 1 | 13 | 15 | 2 | 14 | 1197.8598 | -0.0003 | 0.1067E-01 | |
| 4 | 30 | 2 | 28 | 29 | 3 | 26 | | 1195.3824 | | 0.1482E-02 | 8 | 21 | 0 | 21 | 22 | 1 | 22 | 1197.8831 | -0.0005 | 0.3027E-01 | |
| 4 | 10 | 6 | 4 | 11 | 5 | 6 | | 1195.4730 | | 0.1107E-03 | 4 | 15 | 3 | 12 | 15 | 2 | 14 | 1197.7382 | 0.0002 | 0.3174E-02 | |
| 4 | 10 | 6 | 5 | 11 | 5 | 7 | | 1195.4731 | | 0.1107E-03 | 6 | 27 | 3 | 25 | 27 | 4 | 24 | 1197.8257 | | 0.6057E-03 | |
| 4 | 11 | 3 | 9 | 11 | 2 | 9 | | 1195.4921 | 0.0000 | 0.4907E-02 | 4 | 8 | 5 | 2 | 7 | 4 | 4 | 1197.8501 | | 0.6016E-04 | |
| 6 | 30 | 2 | 29 | 30 | 3 | 28 | | 1195.5325 | | 0.6176E-03 | 4 | 6 | 5 | 1 | 7 | 4 | 3 | 1197.8501 | | 0.6016E-04 | |
| 4 | 28 | 4 | 24 | 29 | 1 | 28 | | 1195.5522 | | 0.7119E-03 | 6 | 25 | 1 | 25 | 25 | 2 | 24 | 1197.8528 | | 0.5248E-03 | |
| 6 | 22 | 0 | 22 | 23 | 1 | 23 | | 1195.8180 | -0.0006 | 0.2444E-01 | 4 | 14 | 2 | 12 | 14 | 1 | 14 | 1197.8649 | -0.0003 | 0.3940E-02 | |
| 6 | 8 | 6 | 2 | 7 | 1 | 7 | | 1195.8593 | | 0.5228E-04 | 4 | 5 | 2 | 3 | 4 | 1 | 3 | 1197.9838 | 0.0002 | 0.2135E-01 | |
| 6 | 8 | 6 | 3 | 7 | 7 | 0 | | 1195.8594 | | 0.5227E-04 | 4 | 9 | 6 | 3 | 10 | 5 | 5 | 1197.9998 | | 0.9318E-04 | |
| 6 | 30 | 3 | 28 | 30 | 4 | 27 | | 1195.7721 | | 0.2332E-03 | 4 | 9 | 6 | 4 | 10 | 5 | 6 | 1197.9998 | | 0.9316E-04 | |
| 4 | 8 | 1 | 7 | 7 | 0 | 7 | | 1195.8599 | 0.0000 | 0.1507E-01 | 6 | 9 | 6 | 4 | 8 | 7 | 1 | 1198.0048 | | 0.1262E-03 | |
| 4 | 4 | 2 | 2 | 3 | 1 | 2 | | 1195.8890 | 0.0002 | 0.1871E-01 | 6 | 9 | 6 | 3 | 8 | 7 | 2 | 1198.0048 | | 0.1283E-03 | |
| 4 | 10 | 3 | 8 | 10 | 2 | 8 | | 1195.9758 | 0.0003 | 0.4877E-02 | 4 | 16 | 3 | 13 | 16 | 2 | 15 | 1198.0469 | 0.0003 | 0.2790E-02 | |
| 4 | 16 | 3 | 13 | 17 | 0 | 17 | | 1198.0090 | | 0.3343E-03 | 4 | 14 | 3 | 11 | 15 | 0 | 15 | 1198.1326 | | 0.1859E-03 | |
| 4 | 13 | 2 | 11 | 13 | 1 | 13 | | 1198.0139 | | 0.5570E-02 | 6 | 27 | 2 | 26 | 27 | 3 | 25 | 1198.3627 | 0.0062R | 0.1846E-02 | |
| 6 | 8 | 2 | 5 | 7 | 3 | 4 | | 1198.0181 | -0.0004 | 0.3233E-01 | 6 | 26 | 3 | 24 | 26 | 4 | 23 | 1198.4061 | 0.8057E-03 | | |
| 6 | 26 | 1 | 28 | 28 | 2 | 25 | | 1198.1351 | | 0.3144E-03 | 4 | 17 | 3 | 14 | 17 | 2 | 16 | 1198.4445 | 0.0005 | 0.2420E-02 | |
| 4 | 25 | 4 | 22 | 25 | 3 | 22 | | 1198.1432 | -0.0010 | 0.1957E-02 | 6 | 5 | 2 | 4 | 6 | 3 | 3 | 1198.4950 | 0.0000 | 0.3318E-01 | |
| 6 | 6 | 2 | 4 | 7 | 3 | 5 | | 1198.1727 | 0.0000 | 0.3255E-01 | 6 | 5 | 2 | 3 | 6 | 3 | 4 | 1198.5720 | -0.0001 | 0.3329E-01 | |
| 8 | 28 | 0 | 28 | 28 | 1 | 27 | | 1198.3506 | | 0.3016E-03 | 4 | 23 | 3 | 20 | 24 | 0 | 24 | 1198.5851 | | 0.1794E-02 | |
| 6 | 15 | 1 | 14 | 18 | 2 | 15 | | 1198.3597 | 0.0003 | 0.9670E-02 | 4 | 26 | 4 | 22 | 27 | 1 | 28 | 1198.7705 | 0.1851E-02 | | |
| 4 | 9 | 3 | 7 | 9 | 2 | 7 | | 1198.3638 | | 0.4758E-02 | 6 | 27 | 0 | 27 | 27 | 1 | 28 | 1198.7892 | 0.5738E-03 | | |
| 6 | 29 | 3 | 27 | 29 | 4 | 26 | | 1198.5068 | | 0.3259E-03 | 4 | 23 | 4 | 20 | 23 | 3 | 20 | 1198.8055 | -0.0005 | 0.2945E-02 | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|------------|------------|----------|
| 6 | 25 | 3 | 23 | 25 | 4 | 22 | | 1198.9326 | | 0.1054E-02 | 6 | 14 | 3 | 12 | 14 | 4 | 11 | 1201.8063 | -0.0003 | 0.6748E-02 | |
| 4 | 18 | 3 | 15 | 18 | 2 | 17 | | 1198.9380 | | 0.2085E-02 | 4 | 22 | 4 | 18 | 22 | 3 | 20 | 1201.8344 | 0.0019 | 0.8038E-02 | |
| 4 | 9 | 1 | 8 | 8 | 0 | 8 | | 1198.9423 | | 0.1458E-01 | 8 | 13 | 3 | 11 | 13 | 4 | 10 | 1201.8975 | -0.0001 | 0.7206E-02 | |
| 4 | 22 | 3 | 19 | 23 | 0 | 23 | | 1199.0085 | | 0.4718E-02 | 6 | 11 | 1 | 10 | 12 | 2 | 11 | 1201.9301 | -0.0002 | 0.1327E-01 | |
| 6 | 13 | 1 | 12 | 14 | 2 | 13 | | 1199.0179 | -0.0004 | 0.1162E-01 | 4 | 28 | 3 | 23 | 27 | 0 | 27 | 1201.9333 | 0.7876E-04 | | |
| 4 | 24 | 3 | 21 | 25 | 0 | 25 | | 1199.1437 | | 0.5789E-03 | 6 | 12 | 3 | 10 | 12 | 4 | 9 | 1201.9757 | -0.0003 | 0.7547E-02 | |
| 6 | 26 | 2 | 25 | 26 | 3 | 24 | | 1199.1749 | | 0.2487E-02 | 6 | 15 | 3 | 12 | 15 | 4 | 11 | 1202.0013 | 0.6295E-02 | | |
| 6 | 24 | 3 | 22 | 24 | 4 | 21 | | 1199.4058 | | 0.1357E-02 | 6 | 16 | 3 | 13 | 16 | 4 | 12 | 1202.0070 | 0.5722E-02 | | |
| 6 | 24 | 1 | 24 | 24 | 2 | 23 | | 1199.4144 | | 0.8341E-03 | 4 | 7 | 2 | 5 | 6 | 1 | 5 | 1202.0106 | -0.0004 | 0.2659E-01 | |
| 4 | 13 | 3 | 10 | 14 | 0 | 14 | | 1199.4948 | | 0.1345E-03 | 6 | 14 | 3 | 11 | 14 | 4 | 10 | 1202.0107 | 0.6814E-02 | | |
| 4 | 5 | 2 | 4 | 4 | 1 | 4 | | 1199.5150 | -0.0001 | 0.1817E-01 | 6 | 17 | 3 | 14 | 17 | 4 | 13 | 1202.0311 | 0.5123E-02 | | |
| 4 | 19 | 3 | 16 | 19 | 2 | 18 | | 1199.5251 | | 0.1807E-02 | 6 | 13 | 3 | 10 | 13 | 4 | 9 | 1202.0314 | -0.0003 | 0.7252E-02 | |
| 6 | 29 | 3 | 27 | 30 | 2 | 28 | | 1199.5948 | | 0.2605E-03 | 6 | 11 | 3 | 9 | 11 | 4 | 8 | 1202.0431 | -0.0001 | 0.7740E-02 | |
| 6 | 26 | 0 | 20 | 21 | 1 | 21 | | 1199.7311 | -0.0005 | 0.3891E-01 | 6 | 12 | 3 | 9 | 12 | 4 | 8 | 1202.0602 | -0.0003 | 0.7577E-02 | |
| 6 | 23 | 3 | 21 | 23 | 4 | 20 | | 1199.8267 | | 0.1717E-02 | 6 | 18 | 3 | 15 | 18 | 4 | 14 | 1202.0771 | 0.4519E-02 | | |
| 4 | 22 | 4 | 19 | 22 | 3 | 19 | | 1199.9222 | -0.0004 | 0.3548E-02 | 6 | 11 | 3 | 8 | 11 | 4 | 7 | 1202.0942 | 0.0002 | 0.7759E-02 | |
| 6 | 25 | 2 | 24 | 25 | 3 | 23 | | 1199.9237 | | 0.3246E-02 | 6 | 10 | 3 | 8 | 10 | 4 | 7 | 1202.1018 | -0.0005 | 0.7753E-02 | |
| 4 | 15 | 2 | 13 | 15 | 1 | 15 | | 1199.9335 | | 0.2850E-02 | 6 | 10 | 3 | 7 | 10 | 4 | 6 | 1202.1311 | 0.0011 | 0.7784E-02 | |
| 4 | 6 | 2 | 4 | 5 | 1 | 4 | | 1200.0199 | 0.0000 | 0.2402E-01 | 4 | 10 | 1 | 9 | 9 | 0 | 9 | 1202.1333 | 0.1366E-01 | | |
| 8 | 8 | 1 | 8 | 9 | 2 | 7 | | 1200.1201 | -0.0001 | 0.8737E-02 | 6 | 19 | 3 | 16 | 19 | 4 | 15 | 1202.1475 | 0.3928E-02 | | |
| 4 | 28 | 3 | 17 | 20 | 2 | 19 | | 1200.1790 | | 0.1808E-02 | 6 | 9 | 3 | 7 | 9 | 4 | 6 | 1202.1527 | -0.0007 | 0.7558E-02 | |
| 6 | 22 | 3 | 20 | 22 | 4 | 19 | | 1200.1978 | | 0.2138E-02 | 6 | 9 | 3 | 6 | 9 | 4 | 5 | 1202.1686 | -0.0004 | 0.7584E-02 | |
| 4 | 25 | 3 | 22 | 26 | 0 | 26 | | 1200.3247 | | 0.2018E-03 | 6 | 8 | 3 | 6 | 8 | 4 | 5 | 1202.1973 | 0.0000 | 0.7126E-02 | |
| 8 | 10 | 6 | 4 | 9 | 7 | 3 | | 1200.3439 | | 0.2024E-03 | 4 | 16 | 2 | 14 | 16 | 1 | 16 | 1202.2219 | -0.0002 | 0.1688E-02 | |
| 8 | 10 | 8 | 5 | 9 | 7 | 2 | | 1200.3444 | | 0.2022E-03 | 6 | 29 | 3 | 26 | 29 | 4 | 25 | 1202.2312 | 0.3400E-03 | | |
| 6 | 12 | 1 | 11 | 13 | 2 | 12 | | 1200.4399 | 0.0001 | 0.1250E-01 | 6 | 7 | 3 | 5 | 7 | 4 | 4 | 1202.2363 | 0.0025 | 0.8429E-02 | |
| 6 | 21 | 1 | 21 | 22 | 0 | 22 | | 1200.4481 | | 0.8261E-02 | 6 | 7 | 3 | 4 | 7 | 4 | 3 | 1202.2400 | -0.0012 | 0.8430E-02 | |
| 4 | 22 | 4 | 18 | 23 | 1 | 22 | | 1200.4614 | | 0.3996E-02 | 6 | 20 | 3 | 17 | 20 | 4 | 18 | 1202.2428 | 0.3365E-02 | | |
| 4 | 8 | 6 | 2 | 9 | 5 | 4 | | 1200.5164 | | 0.7070E-04 | 6 | 6 | 3 | 4 | 6 | 4 | 3 | 1202.2701 | 0.0014 | 0.5436E-02 | |
| 4 | 8 | 6 | 3 | 9 | 5 | 5 | | 1200.5164 | | 0.7070E-04 | 6 | 6 | 3 | 3 | 6 | 4 | 2 | 1202.2716 | -0.0001 | 0.5437E-02 | |
| 6 | 21 | 3 | 19 | 21 | 4 | 18 | | 1200.5218 | | 0.2617E-02 | 6 | 4 | 2 | 5 | 5 | 1 | 5 | 1202.2767 | -0.0007 | 0.1897E-01 | |
| 6 | 24 | 2 | 23 | 24 | 3 | 22 | | 1200.6132 | | 0.4106E-02 | 6 | 5 | 3 | 3 | 5 | 4 | 2 | 1202.2991 | -0.0001 | 0.4105E-02 | |
| 6 | 23 | 1 | 23 | 23 | 2 | 22 | | 1200.6183 | | 0.1221E-02 | 6 | 4 | 3 | 2 | 4 | 4 | 1 | 1202.2996 | -0.0006 | 0.4105E-02 | |
| 4 | 25 | 4 | 21 | 26 | 1 | 25 | | 1200.7823 | | 0.2815E-02 | 6 | 4 | 3 | 1 | 4 | 4 | 0 | 1202.3234 | -0.0004 | 0.2355E-02 | |
| 4 | 21 | 3 | 18 | 21 | 2 | 20 | | 1200.7998 | | 0.1513E-02 | 6 | 21 | 3 | 18 | 21 | 4 | 17 | 1202.3618 | 0.2840E-02 | | |
| 6 | 20 | 3 | 18 | 20 | 4 | 17 | | 1200.8022 | | 0.3151E-02 | 6 | 21 | 4 | 17 | 21 | 3 | 19 | 1202.3758 | 0.0010 | 0.7047E-02 | |
| 4 | 21 | 4 | 18 | 21 | 3 | 18 | | 1200.9063 | -0.0002 | 0.4224E-02 | 6 | 20 | 1 | 20 | 21 | 0 | 21 | 1202.4431 | 0.1140E-01 | | |
| 8 | 4 | 2 | 3 | 5 | 3 | 2 | | 1200.9592 | -0.0001 | 0.3362E-01 | 4 | 21 | 4 | 17 | 21 | 3 | 19 | 1202.4985 | 0.2358E-02 | | |
| 8 | 4 | 2 | 2 | 5 | 3 | 3 | | 1200.9919 | -0.0003 | 0.3367E-01 | 6 | 22 | 3 | 19 | 22 | 4 | 18 | 1202.5175 | -0.0003 | 0.5760E-02 | |
| 4 | 12 | 3 | 9 | 13 | 0 | 13 | | 1201.0413 | | 0.9438E-04 | 6 | 23 | 3 | 25 | 28 | 4 | 24 | 1202.6086 | 0.4851E-03 | | |
| 6 | 19 | 3 | 17 | 19 | 4 | 18 | | 1201.0436 | | 0.3732E-02 | 4 | 19 | 4 | 18 | 19 | 3 | 18 | 1202.6426 | 0.1924E-02 | | |
| 6 | 22 | 1 | 22 | 22 | 2 | 21 | | 1201.0951 | | 0.1469E-02 | 6 | 24 | 3 | 21 | 24 | 4 | 20 | 1202.6831 | 0.2636E-03 | | |
| 4 | 23 | 4 | 19 | 23 | 3 | 21 | | 1201.2484 | 0.0018 | 0.5947E-02 | 6 | 11 | 6 | 5 | 10 | 7 | 4 | 1202.6865 | 0.2598E-03 | | |
| 6 | 18 | 3 | 18 | 18 | 4 | 15 | | 1201.2495 | | 0.4346E-02 | 6 | 11 | 6 | 5 | 10 | 7 | 3 | 1202.7574 | 0.8374E-04 | | |
| 6 | 26 | 0 | 26 | 26 | 1 | 25 | | 1201.2867 | | 0.1015E-02 | 6 | 11 | 6 | 6 | 10 | 7 | 3 | 1202.8220 | 0.1538E-02 | | |
| 6 | 17 | 3 | 15 | 17 | 4 | 14 | | 1201.4247 | | 0.4977E-02 | 4 | 11 | 3 | 8 | 12 | 0 | 12 | 1202.8686 | 0.8761E-03 | | |
| 6 | 18 | 3 | 14 | 16 | 4 | 13 | | 1201.5732 | | 0.5805E-02 | 6 | 24 | 3 | 21 | 24 | 4 | 20 | 1202.8761 | 0.1201E-02 | | |
| 4 | 30 | 5 | 28 | 30 | 4 | 26 | | 1201.6718 | | 0.2337E-03 | 6 | 27 | 3 | 24 | 27 | 4 | 23 | 1202.8879 | 0.8038E-02 | | |
| 6 | 15 | 3 | 13 | 15 | 4 | 12 | | 1201.6993 | -0.0003 | 0.8204E-02 | 6 | 25 | 3 | 22 | 25 | 4 | 21 | 1202.8979 | 0.9133E-03 | | |
| 6 | 19 | 0 | 19 | 20 | 1 | 20 | | 1201.7565 | -0.0004 | 0.4430E-01 | 4 | 20 | 4 | 18 | 20 | 3 | 18 | 1202.8702 | 0.0007 | | |
| 4 | 20 | 4 | 17 | 20 | 3 | 17 | | 1201.7678 | -0.0005 | 0.4965E-02 | 6 | 28 | 3 | 23 | 28 | 4 | 22 | 1202.8979 | 0.0007 | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|------------|------------|----------|
| 4 | 24 | 4 | 20 | 25 | 1 | 24 | | 1203.0342 | | 0.4117E-02 | 4 | 9 | 4 | 5 | 9 | 3 | 7 | 1208.1663 | -0.0001 | 0.9127E-02 | |
| 4 | 18 | 4 | 15 | 18 | 3 | 15 | | 1203.1674 | -0.0004 | 0.6588E-02 | 4 | 22 | 3 | 19 | 22 | 2 | 21 | 1208.2362 | 0.3779E-03 | | |
| 4 | 19 | 4 | 15 | 19 | 3 | 17 | | 1203.3385 | 0.0004 | 0.8974E-02 | 4 | 8 | 4 | 5 | 8 | 3 | 6 | 1208.2881 | 0.0003 | 0.7922E-02 | |
| 6 | 3 | 2 | 2 | 4 | 3 | 1 | | 1203.4132 | 0.0000 | 0.3382E-01 | 4 | 8 | 4 | 4 | 8 | 3 | 6 | 1208.2959 | -0.0004 | 0.8057E-02 | |
| 6 | 3 | 2 | 1 | 4 | 3 | 2 | | 1203.4241 | -0.0003 | 0.3384E-01 | 4 | 7 | 4 | 4 | 7 | 3 | 4 | 1208.4008 | 0.0024R | 0.8774E-02 | |
| 4 | 21 | 4 | 17 | 22 | 1 | 21 | | 1203.4668 | | 0.4060E-02 | 4 | 7 | 4 | 3 | 7 | 3 | 5 | 1208.4044 | -0.0013 | 0.8831E-02 | |
| 6 | 10 | 1 | 9 | 11 | 2 | 10 | | 1203.4918 | -0.0001 | 0.1392E-01 | 6 | 24 | 0 | 24 | 24 | 1 | 23 | 1208.4087 | 0.2722E-02 | | |
| 6 | 7 | 1 | 7 | 8 | 2 | 6 | | 1203.5057 | -0.0001 | 0.9931E-02 | 4 | 6 | 4 | 3 | 6 | 3 | 3 | 1208.4921 | 0.0007 | 0.5434E-02 | |
| 6 | 8 | 5 | 3 | 7 | 6 | 2 | | 1203.5798 | | 0.1084E-03 | 4 | 6 | 4 | 2 | 6 | 3 | 4 | 1208.4937 | -0.0009 | 0.5454E-02 | |
| 6 | 8 | 5 | 4 | 7 | 8 | 1 | | 1203.5798 | | 0.1084E-03 | 4 | 5 | 4 | 2 | 5 | 3 | 2 | 1208.5654 | 0.0008 | 0.3905E-02 | |
| 4 | 17 | 4 | 14 | 17 | 3 | 14 | | 1203.7290 | -0.0003 | 0.7422E-02 | 4 | 5 | 4 | 1 | 5 | 3 | 3 | 1208.5680 | 0.0000 | 0.3910E-02 | |
| 6 | 18 | 0 | 18 | 19 | 1 | 19 | | 1203.7545 | -0.0005 | 0.5232E-01 | 4 | 20 | 4 | 16 | 21 | 1 | 20 | 1208.5684 | 0.4019E-02 | | |
| 4 | 18 | 4 | 14 | 18 | 3 | 18 | | 1203.7649 | 0.0000 | 0.9816E-02 | 4 | 4 | 4 | 1 | 4 | 3 | 1 | 1208.8228 | 0.0001 | 0.2143E-02 | |
| 8 | 28 | 3 | 28 | 29 | 2 | 27 | | 1203.7928 | | 0.3527E-03 | 4 | 4 | 4 | 0 | 4 | 3 | 2 | 1208.8229 | -0.0001 | 0.2144E-02 | |
| 6 | 25 | 0 | 25 | 25 | 1 | 24 | | 1203.8307 | -0.0019 | 0.1699E-02 | 6 | 8 | 1 | 8 | 7 | 2 | 5 | 1208.7277 | 0.0001 | 0.1092E-01 | |
| 4 | 8 | 2 | 6 | 7 | 1 | 6 | | 1203.9709 | 0.0000 | 0.2892E-01 | 6 | 8 | 1 | 7 | 9 | 2 | 8 | 1208.8409 | -0.0001 | 0.1469E-01 | |
| 4 | 17 | 4 | 13 | 17 | 3 | 15 | | 1204.1669 | -0.0001 | 0.1053E-01 | 6 | 29 | 0 | 29 | 28 | 3 | 28 | 1208.8458 | 0.1011E-03 | | |
| 4 | 16 | 4 | 13 | 18 | 3 | 13 | | 1204.2136 | -0.0003 | 0.8221E-02 | 4 | 4 | 3 | 1 | 3 | 2 | 1 | 1207.0284 | 0.4616E-02 | | |
| 4 | 18 | 4 | 12 | 18 | 3 | 14 | | 1204.5153 | -0.0003 | 0.1108E-01 | 4 | 4 | 3 | 2 | 3 | 2 | 2 | 1207.0402 | 0.4612E-02 | | |
| 4 | 15 | 4 | 12 | 15 | 3 | 12 | | 1204.6315 | -0.0003 | 0.8938E-02 | 6 | 21 | 1 | 21 | 21 | 2 | 20 | 1207.0634 | 0.1099E-02 | | |
| 4 | 3 | 3 | 0 | 2 | 2 | 0 | | 1204.8477 | | 0.4410E-02 | 6 | 18 | 1 | 18 | 19 | 0 | 19 | 1207.0651 | 0.1749E-01 | | |
| 4 | 3 | 3 | 1 | 2 | 2 | 1 | | 1204.8500 | | 0.4409E-02 | 6 | 13 | 6 | 7 | 12 | 7 | 6 | 1207.1884 | 0.2676E-03 | | |
| 6 | 19 | 1 | 19 | 20 | 0 | 20 | | 1204.8870 | | 0.1441E-01 | 6 | 13 | 6 | 8 | 12 | 7 | 5 | 1207.2280 | 0.3219E-03 | | |
| 4 | 17 | 2 | 16 | 17 | 1 | 17 | | 1204.7298 | | 0.1010E-02 | 6 | 6 | 4 | 3 | 5 | 5 | 0 | 1207.3752 | 0.3297E-03 | | |
| 3 | 12 | 3 | 10 | 11 | 7 | 5 | | 1204.7444 | | 0.7602E-04 | 6 | 6 | 4 | 2 | 5 | 5 | 1 | 1207.3752 | 0.3297E-03 | | |
| 3 | 12 | 3 | 9 | 11 | 7 | 4 | | 1204.8331 | | 0.1424E-03 | 4 | 18 | 2 | 16 | 18 | 1 | 18 | 1207.4536 | 0.5603E-03 | | |
| 4 | 15 | 4 | 11 | 15 | 3 | 13 | | 1204.8408 | -0.0002 | 0.1144E-01 | 3 | 13 | 3 | 11 | 12 | 7 | 6 | 1207.5668 | 0.1004E-03 | | |
| 4 | 14 | 4 | 11 | 14 | 3 | 11 | | 1204.9915 | -0.0002 | 0.9519E-02 | 6 | 16 | 0 | 16 | 17 | 1 | 17 | 1207.6543 | -0.0008 | 0.6945E-01 | |
| 6 | 12 | 6 | 6 | 11 | 7 | 5 | | 1205.0530 | | 0.2635E-03 | 6 | 28 | 0 | 28 | 27 | 3 | 25 | 1207.7018 | 0.1073E-03 | | |
| 6 | 12 | 6 | 7 | 11 | 7 | 4 | | 1205.0948 | | 0.1871E-03 | 4 | 10 | 2 | 8 | 9 | 1 | 8 | 1207.8678 | -0.0001 | 0.3231E-01 | |
| 4 | 7 | 2 | 6 | 6 | 1 | 6 | | 1205.1064 | 0.0000 | 0.1926E-01 | 4 | 8 | 2 | 7 | 7 | 1 | 7 | 1208.0043 | -0.0001 | 0.1904E-01 | |
| 6 | 9 | 1 | 8 | 10 | 2 | 9 | | 1205.1281 | 0.0003 | 0.1440E-01 | 6 | 27 | 3 | 25 | 28 | 2 | 26 | 1208.0345 | 0.4727E-03 | | |
| 4 | 14 | 4 | 10 | 14 | 3 | 12 | | 1205.1348 | -0.0007 | 0.1160E-01 | 6 | 22 | 2 | 21 | 23 | 1 | 22 | 1208.1809 | -0.0007 | 0.7897E-02 | |
| 4 | 13 | 4 | 10 | 13 | 3 | 10 | | 1205.3013 | -0.0002 | 0.9910E-02 | 6 | 18 | 5 | 5 | 9 | 6 | 4 | 1208.2958 | 0.2347E-03 | | |
| 4 | 13 | 4 | 9 | 13 | 3 | 11 | | 1205.3978 | -0.0002 | 0.1153E-01 | 6 | 18 | 5 | 6 | 9 | 6 | 3 | 1208.2958 | 0.2347E-03 | | |
| 4 | 11 | 1 | 10 | 10 | 0 | 10 | | 1205.4420 | | 0.1241E-01 | 6 | 20 | 1 | 20 | 20 | 2 | 19 | 1208.3551 | 0.1979E-02 | | |
| 6 | 23 | 2 | 22 | 24 | 1 | 23 | | 1205.5020 | -0.0014 | 0.5802E-02 | 4 | 27 | 4 | 23 | 27 | 3 | 25 | 1208.3716 | 0.1941E-03 | | |
| 4 | 12 | 4 | 9 | 12 | 3 | 9 | | 1205.5874 | -0.0002 | 0.1008E-01 | 4 | 28 | 4 | 24 | 28 | 3 | 26 | 1208.4163 | 0.8972E-04 | | |
| 4 | 12 | 4 | 8 | 12 | 3 | 10 | | 1205.8307 | -0.0001 | 0.1125E-01 | 4 | 28 | 4 | 22 | 28 | 3 | 24 | 1208.4498 | 0.3876E-03 | | |
| 6 | 17 | 0 | 17 | 18 | 1 | 18 | | 1205.7212 | -0.0005 | 0.6079E-01 | 6 | 27 | 0 | 27 | 28 | 3 | 24 | 1208.4685 | 0.1107E-03 | | |
| 4 | 11 | 4 | 8 | 11 | 3 | 8 | | 1205.7950 | -0.0002 | 0.9940E-02 | 4 | 25 | 4 | 21 | 25 | 3 | 23 | 1208.6274 | 0.7192E-03 | | |
| 4 | 11 | 4 | 7 | 11 | 3 | 9 | | 1205.8354 | 0.0000 | 0.1074E-01 | 6 | 7 | 1 | 6 | 8 | 2 | 7 | 1208.6320 | 0.1477E-01 | | |
| 6 | 2 | 2 | 1 | 3 | 3 | 0 | | 1205.8593 | 0.0007 | 0.3416E-01 | 4 | 12 | 1 | 11 | 11 | 0 | 11 | 1208.8755 | 0.1093E-01 | | |
| 6 | 2 | 2 | 0 | 3 | 3 | 1 | | 1205.8813 | -0.0015 | 0.3416E-01 | 4 | 24 | 4 | 20 | 24 | 3 | 22 | 1208.8815 | 0.1248E-02 | | |
| 8 | 30 | 0 | 30 | 29 | 3 | 27 | | 1205.9158 | | 0.9276E-04 | 6 | 23 | 0 | 23 | 23 | 1 | 22 | 1208.9980 | -0.0009 | 0.4207E-02 | |
| 4 | 9 | 2 | 7 | 8 | 1 | 7 | | 1205.9175 | -0.0001 | 0.3088E-01 | 6 | 26 | 0 | 26 | 25 | 3 | 23 | 1209.1317 | 0.1108E-03 | | |
| 6 | 9 | 5 | 5 | 8 | 6 | 2 | | 1205.9410 | | 0.1747E-03 | 6 | 23 | 2 | 22 | 23 | 3 | 21 | 1209.1902 | -0.0020 | 0.2040E-02 | |
| 6 | 9 | 5 | 4 | 8 | 6 | 3 | | 1205.9410 | | 0.1747E-03 | 4 | 5 | 3 | 2 | 4 | 2 | 2 | 1209.3888 | 0.4845E-02 | | |
| 4 | 10 | 4 | 7 | 10 | 3 | 7 | | 1205.9886 | 0.0001 | 0.9534E-02 | 4 | 6 | 3 | 3 | 4 | 2 | 3 | 1209.4238 | 0.4833E-02 | | |
| 4 | 10 | 4 | 6 | 10 | 3 | 8 | | 1206.0134 | 0.0000 | 0.1003E-01 | 6 | 14 | 6 | 8 | 13 | 7 | 7 | 1209.5192 | 0.3473E-03 | | |
| 4 | 9 | 4 | 6 | 9 | 3 | 6 | | 1206.1519 | 0.0001 | 0.8853E-02 | 6 | 22 | 2 | 21 | 22 | 3 | 20 | 1209.5338 | 0.3158E-02 | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 6 | 17 | 1 | 17 | | 18 | 0 | 18 | 1209.5348 | | 0.2067E-01 | 4 | 25 | 5 | 21 | | 25 | 4 | 21 | 1212.8678 | | 0.8645E-04 |
| 6 | 14 | 6 | 9 | | 13 | 7 | 6 | 1209.5437 | | 0.3691E-03 | 6 | 8 | 2 | 7 | | 8 | 3 | 6 | 1212.9191 | -0.0002 | 0.3748E-01 |
| 6 | 15 | 0 | 15 | | 16 | 1 | 16 | 1209.5532 | -0.0003 | 0.7801E-01 | 4 | 28 | 5 | 22 | | 28 | 4 | 22 | 1212.9868 | | 0.1147E-03 |
| 6 | 25 | 0 | 25 | | 24 | 3 | 22 | 1209.6780 | | 0.1073E-03 | 6 | 12 | 5 | 8 | | 11 | 6 | 5 | 1212.9858 | | 0.3175E-03 |
| 4 | 19 | 4 | 15 | | 20 | 1 | 19 | 1209.7570 | | 0.3878E-02 | 6 | 12 | 5 | 7 | | 11 | 6 | 6 | 1212.9868 | | 0.3175E-03 |
| 6 | 7 | 4 | 3 | | 6 | 5 | 2 | 1209.7623 | | 0.7869E-03 | 8 | 7 | 2 | 6 | | 7 | 3 | 5 | 1212.9868 | 0.0000 | 0.3577E-01 |
| 6 | 7 | 4 | 4 | | 6 | 5 | 1 | 1209.7623 | | 0.7869E-03 | 4 | 18 | 4 | 14 | | 19 | 1 | 18 | 1213.0195 | | 0.3647E-02 |
| 6 | 19 | 1 | 19 | | 19 | 2 | 18 | 1209.7970 | | 0.2984E-02 | 8 | 6 | 2 | 5 | | 6 | 3 | 4 | 1213.0396 | -0.0001 | 0.3258E-01 |
| 6 | 5 | 1 | 5 | | 6 | 2 | 4 | 1209.8018 | | 0.1162E-01 | 6 | 5 | 2 | 4 | | 5 | 3 | 3 | 1213.0802 | -0.0003 | 0.2778E-01 |
| 4 | 11 | 2 | 9 | | 10 | 1 | 9 | 1209.8387 | -0.0002 | 0.3308E-01 | 6 | 4 | 2 | 3 | | 4 | 3 | 2 | 1213.1107 | -0.0001 | 0.2119E-01 |
| 6 | 21 | 2 | 20 | | 21 | 3 | 19 | 1209.8951 | -0.0003 | 0.4657E-02 | 6 | 3 | 2 | 2 | | 3 | 3 | 1 | 1213.1327 | 0.0000 | 0.1238E-01 |
| 6 | 24 | 0 | 24 | | 23 | 3 | 21 | 1210.0948 | | 0.1002E-03 | 6 | 4 | 2 | 2 | | 4 | 3 | 1 | 1213.1428 | -0.0001 | 0.2122E-01 |
| 6 | 20 | 2 | 19 | | 20 | 3 | 18 | 1210.2599 | -0.0001 | 0.8578E-02 | 6 | 3 | 2 | 1 | | 3 | 3 | 0 | 1213.1436 | -0.0008 | 0.1239E-01 |
| 6 | 23 | 0 | 23 | | 22 | 3 | 20 | 1210.3708 | | 0.8995E-04 | 6 | 5 | 2 | 3 | | 5 | 3 | 2 | 1213.1548 | -0.0003 | 0.2789E-01 |
| 4 | 19 | 2 | 17 | | 19 | 1 | 19 | 1210.3881 | | 0.2806E-03 | 4 | 27 | 5 | 23 | | 27 | 4 | 23 | 1213.1863 | | 0.1369E-03 |
| 6 | 21 | 0 | 21 | | 20 | 3 | 18 | 1210.4589 | | 0.8281E-04 | 6 | 6 | 2 | 4 | | 6 | 3 | 3 | 1213.1877 | -0.0002 | 0.3283E-01 |
| 6 | 22 | 0 | 22 | | 21 | 3 | 19 | 1210.4954 | | 0.7713E-04 | 6 | 7 | 2 | 5 | | 7 | 3 | 4 | 1213.2510 | 0.0040 | 0.3629E-01 |
| 6 | 6 | 1 | 5 | | 7 | 2 | 6 | 1210.5021 | 0.0001 | 0.1463E-01 | 6 | 13 | 0 | 13 | | 14 | 1 | 14 | 1213.2563 | -0.0013 | 0.9347E-01 |
| 6 | 19 | 2 | 18 | | 19 | 3 | 17 | 1210.6171 | 0.0001 | 0.8939E-02 | 6 | 8 | 2 | 6 | | 8 | 3 | 5 | 1213.3544 | -0.0001 | 0.3843E-01 |
| 6 | 11 | 5 | 6 | | 10 | 6 | 5 | 1210.6440 | | 0.2832E-03 | 4 | 28 | 5 | 24 | | 28 | 4 | 24 | 1213.4792 | | 0.1491E-03 |
| 6 | 11 | 5 | 7 | | 10 | 6 | 4 | 1210.6440 | | 0.2832E-03 | 6 | 9 | 2 | 7 | | 9 | 3 | 6 | 1213.5081 | 0.0000 | 0.3942E-01 |
| 6 | 18 | 2 | 17 | | 18 | 3 | 16 | 1210.9583 | 0.0004 | 0.1173E-01 | 4 | 18 | 5 | 13 | | 18 | 4 | 15 | 1213.5258 | | 0.5840E-04 |
| 4 | 9 | 2 | 8 | | 8 | 1 | 8 | 1210.9898 | -0.0001 | 0.1833E-01 | 4 | 20 | 2 | 18 | | 20 | 1 | 20 | 1213.5258 | | 0.1206E-03 |
| 6 | 21 | 2 | 20 | | 22 | 1 | 21 | 1210.9858 | -0.0005 | 0.1041E-01 | 4 | 17 | 5 | 13 | | 17 | 4 | 13 | 1213.6532 | | 0.8221E-04 |
| 6 | 18 | 1 | 18 | | 18 | 2 | 17 | 1211.2668 | -0.0001 | 0.4146E-02 | 4 | 17 | 5 | 12 | | 17 | 4 | 14 | 1213.6667 | | 0.9753E-04 |
| 6 | 17 | 2 | 16 | | 17 | 3 | 15 | 1211.2771 | 0.0005 | 0.1491E-01 | 6 | 10 | 2 | 8 | | 10 | 3 | 7 | 1213.7212 | -0.0001 | 0.3946E-01 |
| 6 | 14 | 0 | 14 | | 15 | 1 | 15 | 1211.4193 | -0.0002 | 0.8614E-01 | 4 | 16 | 5 | 12 | | 16 | 4 | 12 | 1213.7952 | | 0.1365E-03 |
| 6 | 16 | 2 | 15 | | 16 | 3 | 14 | 1211.5699 | 0.0004 | 0.1839E-01 | 4 | 16 | 5 | 11 | | 16 | 4 | 13 | 1213.8052 | | 0.1491E-03 |
| 6 | 22 | 0 | 22 | | 22 | 1 | 21 | 1211.5863 | -0.0011 | 0.8309E-02 | 4 | 29 | 5 | 25 | | 29 | 4 | 25 | 1213.9078 | | 0.1497E-03 |
| 4 | 6 | 3 | 3 | | 5 | 2 | 3 | 1211.7218 | | 0.5047E-02 | 4 | 13 | 2 | 11 | | 12 | 1 | 11 | 1213.9103 | -0.0002 | 0.3238E-01 |
| 4 | 6 | 3 | 4 | | 5 | 2 | 4 | 1211.8029 | | 0.5018E-02 | 4 | 15 | 5 | 11 | | 15 | 4 | 11 | 1213.9332 | | 0.2030E-03 |
| 6 | 15 | 6 | 9 | | 14 | 7 | 8 | 1211.8174 | | 0.3688E-03 | 4 | 15 | 5 | 10 | | 15 | 4 | 12 | 1213.9401 | | 0.2125E-03 |
| 6 | 15 | 2 | 14 | | 15 | 3 | 13 | 1211.8344 | 0.0004 | 0.2207E-01 | 6 | 29 | 2 | 19 | | 21 | 1 | 20 | 1213.9521 | 0.0000 | 0.1331E-01 |
| 6 | 15 | 6 | 10 | | 14 | 7 | 7 | 1211.8398 | | 0.3816E-03 | 6 | 11 | 2 | 9 | | 11 | 3 | 8 | 1214.0020 | 0.0001 | 0.3872E-01 |
| 4 | 12 | 2 | 10 | | 11 | 1 | 10 | 1211.8477 | -0.0001 | 0.3312E-01 | 4 | 10 | 2 | 9 | | 9 | 1 | 9 | 1214.0027 | | 0.1720E-01 |
| 6 | 14 | 2 | 13 | | 14 | 3 | 12 | 1212.0693 | 0.0004 | 0.2578E-01 | 4 | 7 | 3 | 4 | | 6 | 2 | 4 | 1214.0197 | | 0.5197E-02 |
| 6 | 16 | 1 | 16 | | 17 | 0 | 17 | 1212.0784 | | 0.2392E-01 | 4 | 14 | 5 | 10 | | 14 | 4 | 10 | 1214.0658 | | 0.2790E-03 |
| 6 | 8 | 4 | 5 | | 7 | 5 | 2 | 1212.1442 | -0.0004 | 0.1262E-02 | 4 | 14 | 5 | 9 | | 14 | 4 | 11 | 1214.0703 | | 0.2857E-03 |
| 6 | 8 | 4 | 4 | | 7 | 5 | 3 | 1212.1443 | -0.0005 | 0.1262E-02 | 6 | 16 | 6 | 10 | | 15 | 7 | 9 | 1214.1002 | | 0.3663E-03 |
| 6 | 13 | 2 | 12 | | 13 | 3 | 11 | 1212.2750 | 0.0002 | 0.2934E-01 | 6 | 16 | 1 | 18 | | 16 | 2 | 15 | 1214.1162 | 0.0000 | 0.7000E-02 |
| 6 | 30 | 1 | 29 | | 30 | 2 | 28 | 1212.2903 | | 0.3133E-03 | 6 | 16 | 6 | 11 | | 15 | 7 | 8 | 1214.1241 | | 0.3760E-03 |
| 6 | 26 | 3 | 24 | | 27 | 2 | 25 | 1212.3002 | | 0.6268E-03 | 6 | 21 | 0 | 21 | | 21 | 1 | 20 | 1214.1512 | -0.0009 | 0.9208E-02 |
| 4 | 13 | 1 | 12 | | 12 | 0 | 12 | 1212.4387 | | 0.9352E-02 | 4 | 7 | 3 | 5 | | 6 | 2 | 5 | 1214.1805 | | 0.5137E-02 |
| 6 | 5 | 1 | 4 | | 6 | 2 | 5 | 1212.4521 | 0.0004 | 0.1427E-01 | 4 | 13 | 5 | 9 | | 13 | 4 | 9 | 1214.1923 | | 0.3605E-03 |
| 6 | 12 | 2 | 11 | | 12 | 3 | 10 | 1212.4526 | -0.0002 | 0.3254E-01 | 4 | 13 | 5 | 8 | | 13 | 4 | 10 | 1214.1949 | | 0.3648E-03 |
| 6 | 11 | 2 | 10 | | 11 | 3 | 9 | 1212.6038 | 0.0001 | 0.3517E-01 | 4 | 12 | 5 | 8 | | 12 | 4 | 8 | 1214.3118 | | 0.4416E-03 |
| 6 | 17 | 1 | 17 | | 17 | 2 | 18 | 1212.7148 | 0.0003 | 0.5486E-02 | 4 | 12 | 5 | 7 | | 12 | 4 | 9 | 1214.3131 | | 0.4442E-03 |
| 6 | 10 | 2 | 9 | | 10 | 3 | 8 | 1212.7301 | 0.0000 | 0.3701E-01 | 6 | 12 | 2 | 10 | | 12 | 3 | 9 | 1214.3560 | 0.0001 | 0.3738E-01 |
| 6 | 4 | 1 | 4 | | 5 | 2 | 3 | 1212.7423 | -0.0003 | 0.1196E-01 | 4 | 11 | 5 | 7 | | 11 | 4 | 7 | 1214.4233 | | 0.5154E-03 |
| 6 | 9 | 2 | 8 | | 9 | 3 | 7 | 1212.8344 | -0.0002 | 0.3784E-01 | 4 | 11 | 5 | 6 | | 11 | 4 | 8 | 1214.4243 | | 0.5167E-03 |
| 4 | 24 | 5 | 20 | | 24 | 4 | 20 | 1212.8503 | | 0.5712E-04 | 6 | 30 | 3 | 27 | | 30 | 4 | 26 | 1214.4399 | | 0.1398E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 6 | 5 | 3 | 3 | | 4 | 4 | 0 | 1214.4443 | | 0.2531E-03 | 6 | 14 | 5 | 10 | | 13 | 6 | 7 | 1217.6512 | | 0.3432E-03 |
| 6 | 5 | 3 | 2 | | 4 | 4 | 1 | 1214.4448 | | 0.2531E-03 | 6 | 14 | 5 | 9 | | 13 | 6 | 8 | 1217.6512 | | 0.3432E-03 |
| 6 | 4 | 1 | 3 | | 5 | 2 | 4 | 1214.4823 | -0.0001 | 0.1369E-01 | 6 | 13 | 1 | 13 | | 13 | 2 | 12 | 1217.9307 | 0.0000 | 0.1227E-01 |
| 6 | 29 | 1 | 28 | | 29 | 2 | 27 | 1214.5024 | | 0.4980E-03 | 6 | 18 | 2 | 16 | | 18 | 3 | 15 | 1217.9449 | 0.0004 | 0.2341E-01 |
| 6 | 9 | 4 | 8 | | 8 | 5 | 3 | 1214.5212 | -0.0002 | 0.1692E-02 | 4 | 15 | 2 | 13 | | 14 | 1 | 13 | 1218.2535 | -0.0001 | 0.2870E-01 |
| 6 | 9 | 4 | 5 | | 8 | 5 | 4 | 1214.5212 | -0.0004 | 0.1692E-02 | 6 | 2 | 1 | 2 | | 3 | 2 | 1 | 1218.2744 | | 0.1159E-01 |
| 4 | 10 | 5 | 8 | | 10 | 4 | 6 | 1214.5273 | | 0.6732E-03 | 4 | 9 | 3 | 6 | | 8 | 2 | 6 | 1218.4716 | | 0.5301E-02 |
| 4 | 10 | 5 | 5 | | 10 | 4 | 7 | 1214.5277 | | 0.5739E-03 | 6 | 27 | 1 | 26 | | 27 | 2 | 25 | 1218.5878 | | 0.1171E-02 |
| 4 | 9 | 5 | 6 | | 9 | 4 | 5 | 1214.6229 | | 0.6068E-03 | 6 | 18 | 6 | 12 | | 17 | 7 | 11 | 1218.6326 | | 0.3238E-03 |
| 4 | 9 | 5 | 4 | | 9 | 4 | 6 | 1214.6230 | | 0.6081E-03 | 6 | 10 | 0 | 10 | | 11 | 1 | 11 | 1218.6613 | -0.0001 | 0.1076E+00 |
| 6 | 15 | 1 | 15 | | 16 | 0 | 16 | 1214.6873 | -0.0001 | 0.2713E-01 | 6 | 18 | 6 | 13 | | 17 | 7 | 10 | 1218.6864 | | 0.3309E-03 |
| 4 | 8 | 5 | 4 | | 8 | 4 | 4 | 1214.7097 | | 0.6031E-03 | 6 | 19 | 2 | 17 | | 19 | 3 | 16 | 1218.7009 | 0.0003 | 0.2077E-01 |
| 4 | 8 | 5 | 3 | | 8 | 4 | 5 | 1214.7098 | | 0.6032E-03 | 4 | 5 | 4 | 1 | | 4 | 3 | 1 | 1218.7167 | 0.0002 | 0.9393E-02 |
| 6 | 13 | 2 | 11 | | 13 | 3 | 10 | 1214.7864 | 0.0003 | 0.3559E-01 | 4 | 5 | 4 | 2 | | 4 | 3 | 2 | 1218.7169 | 0.0000 | 0.9396E-02 |
| 4 | 7 | 5 | 2 | | 7 | 4 | 4 | 1214.7876 | | 0.5545E-03 | 6 | 2 | 1 | 1 | | 3 | 2 | 2 | 1218.7834 | | 0.1206E-01 |
| 4 | 7 | 5 | 3 | | 7 | 4 | 3 | 1214.7876 | | 0.5546E-03 | 4 | 9 | 3 | 7 | | 8 | 2 | 7 | 1218.9438 | | 0.5123E-02 |
| 4 | 6 | 5 | 2 | | 6 | 4 | 2 | 1214.8562 | | 0.4484E-03 | 6 | 12 | 1 | 12 | | 12 | 2 | 11 | 1219.0513 | -0.0003 | 0.1406E-01 |
| 4 | 6 | 5 | 1 | | 6 | 4 | 3 | 1214.8562 | | 0.4484E-03 | 6 | 19 | 0 | 19 | | 19 | 1 | 18 | 1219.1260 | -0.0006 | 0.1827E-01 |
| 4 | 5 | 5 | 0 | | 5 | 4 | 2 | 1214.9154 | | 0.2707E-03 | 6 | 7 | 3 | 5 | | 6 | 4 | 2 | 1219.2424 | | 0.9338E-03 |
| 4 | 5 | 5 | 1 | | 5 | 4 | 1 | 1214.9154 | | 0.2707E-03 | 6 | 7 | 3 | 4 | | 6 | 4 | 3 | 1219.2461 | | 0.9340E-03 |
| 6 | 12 | 0 | 12 | | 13 | 1 | 13 | 1215.0699 | -0.0002 | 0.9968E-01 | 6 | 11 | 4 | 8 | | 10 | 5 | 5 | 1219.2611 | 0.0002 | 0.2291E-02 |
| 6 | 14 | 2 | 12 | | 14 | 3 | 11 | 1215.2928 | 0.0001 | 0.3348E-01 | 6 | 11 | 4 | 7 | | 10 | 5 | 8 | 1219.2618 | -0.0005 | 0.2291E-02 |
| 6 | 13 | 5 | 9 | | 12 | 6 | 6 | 1215.3215 | | 0.3373E-03 | 8 | 20 | 2 | 18 | | 20 | 3 | 17 | 1219.4568 | 0.0006 | 0.1817E-01 |
| 6 | 13 | 5 | 8 | | 12 | 6 | 7 | 1215.3217 | | 0.3373E-03 | 4 | 16 | 4 | 12 | | 17 | 1 | 18 | 1219.7084 | | 0.2974E-02 |
| 6 | 15 | 1 | 15 | | 15 | 2 | 14 | 1215.4581 | 0.0001 | 0.8688E-02 | 4 | 15 | 1 | 14 | | 14 | 0 | 14 | 1219.9575 | | 0.6278E-02 |
| 6 | 3 | 1 | 3 | | 4 | 2 | 2 | 1215.5627 | 0.0001 | 0.1193E-01 | 8 | 15 | 5 | 11 | | 14 | 6 | 8 | 1219.9750 | | 0.3370E-03 |
| 6 | 15 | 2 | 13 | | 15 | 3 | 12 | 1215.8713 | 0.0001 | 0.3114E-01 | 6 | 15 | 5 | 10 | | 14 | 6 | 9 | 1219.9752 | | 0.3370E-03 |
| 4 | 14 | 2 | 12 | | 13 | 1 | 12 | 1216.0414 | -0.0001 | 0.3087E-01 | 4 | 23 | 6 | 18 | | 23 | 5 | 18 | 1220.0250 | | 0.5242E-04 |
| 4 | 14 | 1 | 13 | | 13 | 0 | 13 | 1216.1334 | | 0.7773E-02 | 4 | 23 | 6 | 17 | | 23 | 5 | 19 | 1220.0361 | | 0.5356E-04 |
| 4 | 8 | 3 | 5 | | 7 | 2 | 5 | 1216.2728 | | 0.5282E-02 | 6 | 13 | 1 | 13 | | 14 | 0 | 14 | 1220.0808 | 0.0000 | 0.3292E-01 |
| 4 | 17 | 4 | 13 | | 18 | 1 | 17 | 1216.3418 | | 0.3339E-02 | 8 | 11 | 1 | 11 | | 11 | 2 | 10 | 1220.0905 | -0.0001 | 0.1570E-01 |
| 4 | 4 | 4 | 0 | | 3 | 3 | 0 | 1216.3423 | 0.0000 | 0.9396E-02 | 6 | 21 | 2 | 19 | | 21 | 3 | 18 | 1220.1971 | 0.0006 | 0.1685E-01 |
| 4 | 4 | 4 | 1 | | 3 | 3 | 1 | 1216.3424 | 0.0000 | 0.9397E-02 | 8 | 18 | 2 | 17 | | 19 | 1 | 18 | 1220.2128 | 0.0004 | 0.2013E-01 |
| 6 | 17 | 8 | 11 | | 18 | 7 | 10 | 1216.3715 | | 0.3497E-03 | 4 | 22 | 6 | 17 | | 22 | 5 | 17 | 1220.2531 | | 0.7797E-04 |
| 6 | 17 | 8 | 12 | | 16 | 7 | 9 | 1216.3993 | | 0.3578E-03 | 4 | 22 | 6 | 16 | | 22 | 5 | 18 | 1220.2604 | | 0.7895E-04 |
| 6 | 16 | 2 | 14 | | 16 | 3 | 13 | 1216.5142 | 0.0002 | 0.2864E-01 | 4 | 12 | 2 | 11 | | 11 | 1 | 11 | 1220.2683 | 0.0000 | 0.1401E-01 |
| 4 | 8 | 3 | 8 | | 7 | 2 | 6 | 1216.5597 | | 0.5174E-02 | 6 | 28 | 1 | 25 | | 26 | 2 | 24 | 1220.4260 | | 0.1732E-02 |
| 6 | 25 | 3 | 23 | | 26 | 2 | 24 | 1216.5702 | | 0.8223E-03 | 6 | 9 | 6 | 9 | | 10 | 1 | 10 | 1220.4591 | -0.0001 | 0.1088E+00 |
| 6 | 3 | 1 | 2 | | 4 | 2 | 3 | 1216.5927 | 0.0001 | 0.1293E-01 | 4 | 21 | 6 | 16 | | 21 | 5 | 16 | 1220.4705 | | 0.1116E-03 |
| 6 | 28 | 1 | 27 | | 28 | 2 | 26 | 1216.6080 | | 0.7728E-03 | 4 | 21 | 6 | 15 | | 21 | 5 | 17 | 1220.4752 | | 0.1123E-03 |
| 6 | 20 | 0 | 20 | | 20 | 1 | 19 | 1216.6716 | -0.0007 | 0.1312E-01 | 4 | 16 | 2 | 14 | | 15 | 1 | 14 | 1220.5587 | -0.0001 | 0.2601E-01 |
| 6 | 14 | 1 | 14 | | 14 | 2 | 13 | 1216.7314 | 0.0000 | 0.1045E-01 | 4 | 10 | 3 | 7 | | 9 | 2 | 7 | 1220.6060 | | 0.5254E-02 |
| 6 | 6 | 3 | 4 | | 5 | 4 | 1 | 1216.8456 | | 0.5913E-03 | 4 | 20 | 6 | 15 | | 20 | 5 | 16 | 1220.6772 | | 0.1540E-03 |
| 6 | 6 | 3 | 3 | | 5 | 4 | 2 | 1216.8470 | | 0.5913E-03 | 4 | 20 | 6 | 14 | | 20 | 5 | 16 | 1220.6803 | | 0.1546E-03 |
| 6 | 11 | 0 | 11 | | 12 | 1 | 12 | 1216.8684 | -0.0004 | 0.1045E+00 | 6 | 24 | 3 | 22 | | 25 | 2 | 23 | 1220.8267 | | 0.1067E-02 |
| 6 | 10 | 4 | 7 | | 9 | 5 | 4 | 1216.8934 | 0.0001 | 0.2041E-02 | 4 | 19 | 6 | 14 | | 19 | 5 | 14 | 1220.8739 | | 0.2061E-03 |
| 6 | 10 | 4 | 8 | | 9 | 5 | 5 | 1216.8937 | -0.0002 | 0.2041E-02 | 4 | 19 | 6 | 13 | | 19 | 5 | 15 | 1220.8757 | | 0.2066E-03 |
| 6 | 19 | 2 | 18 | | 20 | 1 | 19 | 1217.0355 | 0.0001 | 0.1858E-01 | 6 | 19 | 6 | 13 | | 18 | 7 | 12 | 1220.8842 | | 0.2919E-03 |
| 4 | 11 | 2 | 10 | | 10 | 1 | 10 | 1217.1024 | -0.0002 | 0.1572E-01 | 6 | 1 | 1 | 1 | | 2 | 2 | 0 | 1220.8861 | | 0.1115E-01 |
| 6 | 17 | 2 | 15 | | 17 | 3 | 14 | 1217.2102 | 0.0002 | 0.2605E-01 | 6 | 22 | 2 | 20 | | 22 | 3 | 19 | 1220.8951 | 0.0007 | 0.1326E-01 |
| 6 | 14 | 1 | 14 | | 15 | 0 | 15 | 1217.3563 | -0.0001 | 0.3018E-01 | 6 | 19 | 6 | 14 | | 18 | 7 | 11 | 1220.9258 | | 0.2983E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 10 | 1 | 10 | 10 | 2 | 9 | | 1221.0459 | 0.0003 | 0.1709E-01 | 6 | 26 | 2 | 24 | 26 | 3 | 23 | 1222.8730 | | 0.5628E-02 | |
| 6 | 1 | 1 | 0 | 2 | 2 | 1 | | 1221.0542 | | 0.1130E-01 | 4 | 17 | 2 | 15 | 16 | 1 | 15 | 1222.9667 | 0.0000 | 0.2296E-01 | |
| 4 | 18 | 6 | 13 | 18 | 5 | 13 | | 1221.0601 | | 0.2680E-03 | 6 | 29 | 2 | 27 | 29 | 3 | 26 | 1223.0302 | | 0.2353E-02 | |
| 4 | 18 | 6 | 12 | 18 | 5 | 14 | | 1221.0612 | | 0.2684E-03 | 6 | 27 | 2 | 25 | 27 | 3 | 24 | 1223.0750 | | 0.4306E-02 | |
| 4 | 6 | 4 | 2 | 5 | 3 | 2 | | 1221.0765 | 0.0005 | 0.9303E-02 | 4 | 15 | 4 | 11 | 16 | 1 | 15 | 1223.1039 | | 0.2570E-02 | |
| 4 | 6 | 4 | 3 | 5 | 3 | 3 | | 1221.0774 | -0.0004 | 0.9315E-02 | 6 | 26 | 6 | 14 | 19 | 7 | 13 | 1223.1262 | | 0.2571E-03 | |
| 4 | 17 | 8 | 12 | 17 | 5 | 12 | | 1221.2362 | | 0.3389E-03 | 6 | 28 | 2 | 26 | 28 | 3 | 25 | 1223.1310 | | 0.3220E-02 | |
| 4 | 17 | 8 | 11 | 17 | 5 | 13 | | 1221.2368 | | 0.3391E-03 | 6 | 26 | 6 | 15 | 19 | 7 | 12 | 1223.1781 | | 0.2628E-03 | |
| 4 | 10 | 3 | 8 | 9 | 2 | 8 | | 1221.3370 | | 0.4983E-02 | 6 | 7 | 1 | 7 | 7 | 2 | 6 | 1223.3975 | 0.0000 | 0.1850E-01 | |
| 4 | 16 | 6 | 11 | 16 | 5 | 11 | | 1221.4022 | | 0.4171E-03 | 4 | 7 | 4 | 3 | 8 | 3 | 3 | 1223.4198 | 0.0013 | 0.9068E-02 | |
| 4 | 16 | 6 | 10 | 16 | 5 | 12 | | 1221.4025 | | 0.4172E-03 | 4 | 7 | 4 | 4 | 6 | 3 | 4 | 1223.4221 | -0.0013 | 0.9103E-02 | |
| 6 | 18 | 0 | 18 | 18 | 1 | 17 | | 1221.4935 | -0.0004 | 0.2489E-01 | 6 | 17 | 2 | 16 | 18 | 1 | 17 | 1223.4622 | 0.0004 | 0.2389E-01 | |
| 6 | 23 | 2 | 21 | 23 | 3 | 20 | | 1221.5313 | 0.0009 | 0.1103E-01 | 4 | 13 | 2 | 12 | 12 | 1 | 12 | 1223.4998 | 0.0000 | 0.1216E-01 | |
| 4 | 15 | 6 | 10 | 15 | 5 | 10 | | 1221.5580 | | 0.4997E-03 | 6 | 24 | 1 | 23 | 24 | 2 | 22 | 1223.6313 | | 0.3530E-02 | |
| 4 | 15 | 6 | 9 | 15 | 5 | 11 | | 1221.5582 | | 0.4998E-03 | 4 | 11 | 3 | 9 | 10 | 2 | 9 | 1223.7427 | | 0.4759E-02 | |
| 6 | 12 | 4 | 9 | 11 | 5 | 6 | | 1221.8248 | 0.0007 | 0.2438E-02 | 6 | 17 | 0 | 17 | 17 | 1 | 16 | 1223.7543 | -0.0006 | 0.3320E-01 | |
| 6 | 12 | 4 | 8 | 11 | 5 | 7 | | 1221.8262 | -0.0008 | 0.2438E-02 | 4 | 16 | 1 | 15 | 15 | 0 | 15 | 1223.9049 | | 0.4928E-02 | |
| 6 | 8 | 3 | 6 | 7 | 4 | 3 | | 1221.8349 | | 0.1237E-02 | 6 | 13 | 4 | 10 | 12 | 5 | 7 | 1223.9841 | 0.0014 | 0.2487E-02 | |
| 6 | 8 | 3 | 5 | 7 | 4 | 4 | | 1221.8429 | | 0.1237E-02 | 6 | 13 | 4 | 9 | 12 | 5 | 8 | 1223.9871 | -0.0015 | 0.2487E-02 | |
| 4 | 14 | 6 | 9 | 14 | 5 | 9 | | 1221.7039 | | 0.5824E-03 | 6 | 8 | 1 | 6 | 6 | 2 | 5 | 1224.0073 | 0.0000 | 0.1770E-01 | |
| 4 | 14 | 6 | 8 | 14 | 5 | 10 | | 1221.7040 | | 0.5825E-03 | 6 | 9 | 3 | 7 | 8 | 4 | 4 | 1224.0225 | | 0.1476E-02 | |
| 4 | 13 | 6 | 7 | 13 | 5 | 9 | | 1221.8398 | | 0.6598E-03 | 6 | 9 | 3 | 6 | 8 | 4 | 5 | 1224.0386 | | 0.1477E-02 | |
| 4 | 13 | 6 | 8 | 13 | 5 | 8 | | 1221.8398 | | 0.6598E-03 | 6 | 7 | 0 | 7 | 8 | 1 | 8 | 1224.1161 | -0.0002 | 0.1053E+00 | |
| 6 | 9 | 1 | 9 | 9 | 2 | 8 | | 1221.9163 | 0.0000 | 0.1809E-01 | 6 | 5 | 1 | 5 | 5 | 2 | 4 | 1224.5299 | 0.0000 | 0.1615E-01 | |
| 4 | 12 | 6 | 7 | 12 | 5 | 7 | | 1221.9859 | | 0.7247E-03 | 6 | 17 | 5 | 13 | 16 | 6 | 10 | 1224.6061 | | 0.2977E-03 | |
| 4 | 12 | 6 | 8 | 12 | 5 | 8 | | 1221.9859 | | 0.7247E-03 | 6 | 17 | 5 | 12 | 16 | 6 | 11 | 1224.6071 | | 0.2977E-03 | |
| 4 | 11 | 6 | 5 | 11 | 5 | 7 | | 1222.0822 | | 0.7691E-03 | 4 | 12 | 3 | 9 | 11 | 2 | 9 | 1224.8447 | | 0.4988E-02 | |
| 4 | 11 | 6 | 6 | 11 | 5 | 8 | | 1222.0822 | | 0.7691E-03 | 6 | 4 | 1 | 4 | 4 | 2 | 3 | 1224.9851 | 0.0001 | 0.1379E-01 | |
| 6 | 24 | 2 | 22 | 24 | 3 | 21 | | 1222.0853 | 0.0008 | 0.9000E-02 | 6 | 23 | 1 | 22 | 23 | 2 | 21 | 1224.9844 | | 0.4859E-02 | |
| 6 | 25 | 1 | 24 | 25 | 2 | 23 | | 1222.1101 | | 0.2503E-02 | 6 | 23 | 3 | 21 | 24 | 2 | 22 | 1225.0529 | | 0.1389E-02 | |
| 4 | 10 | 6 | 5 | 10 | 5 | 5 | | 1222.1884 | | 0.7835E-03 | 6 | 5 | 2 | 4 | 4 | 3 | 1 | 1225.2310 | -0.0002 | 0.4424E-02 | |
| 4 | 10 | 6 | 4 | 10 | 5 | 6 | | 1222.1884 | | 0.7835E-03 | 6 | 5 | 2 | 3 | 4 | 3 | 2 | 1225.3064 | | 0.4436E-02 | |
| 6 | 8 | 0 | 8 | 9 | 1 | 9 | | 1222.2736 | -0.0001 | 0.1080E+00 | 6 | 3 | 1 | 3 | 3 | 2 | 2 | 1225.3130 | 0.0000 | 0.1058E-01 | |
| 4 | 9 | 6 | 3 | 9 | 5 | 5 | | 1222.2850 | | 0.7579E-03 | 6 | 21 | 8 | 15 | 20 | 7 | 14 | 1225.3590 | | 0.2216E-03 | |
| 4 | 9 | 6 | 4 | 9 | 5 | 4 | | 1222.2850 | | 0.7579E-03 | 6 | 21 | 8 | 16 | 20 | 7 | 13 | 1225.4238 | | 0.2268E-03 | |
| 6 | 16 | 5 | 12 | 15 | 6 | 9 | | 1222.2933 | | 0.3210E-03 | 4 | 18 | 2 | 18 | 17 | 1 | 16 | 1225.4867 | -0.0002 | 0.1974E-01 | |
| 6 | 16 | 5 | 11 | 15 | 6 | 10 | | 1222.2937 | | 0.3210E-03 | 6 | 2 | 1 | 2 | 2 | 2 | 1 | 1225.5739 | | 0.6341E-02 | |
| 4 | 8 | 8 | 2 | 8 | 5 | 4 | | 1222.3718 | | 0.6809E-03 | 6 | 11 | 1 | 11 | 12 | 6 | 12 | 1225.6729 | 0.0000 | 0.3688E-01 | |
| 4 | 8 | 8 | 3 | 8 | 5 | 3 | | 1222.3718 | | 0.6809E-03 | 4 | 8 | 4 | 4 | 7 | 3 | 4 | 1225.7429 | 0.0007 | 0.8871E-02 | |
| 4 | 7 | 6 | 1 | 7 | 5 | 3 | | 1222.4489 | | 0.5401E-03 | 4 | 8 | 4 | 5 | 7 | 3 | 5 | 1225.7498 | -0.0002 | 0.8751E-02 | |
| 4 | 7 | 6 | 2 | 7 | 5 | 2 | | 1222.4489 | | 0.5401E-03 | 6 | 16 | 0 | 16 | 16 | 1 | 15 | 1225.8914 | -0.0003 | 0.4333E-01 | |
| 4 | 27 | 5 | 22 | 28 | 2 | 26 | | 1222.5068 | | 0.6127E-04 | 8 | 8 | 0 | 6 | 7 | 1 | 7 | 1225.9973 | 0.0002 | 0.1004E+00 | |
| 4 | 8 | 6 | 1 | 6 | 5 | 1 | | 1222.5164 | | 0.3203E-03 | 6 | 2 | 1 | 1 | 2 | 2 | 0 | 1226.0686 | | 0.6591E-02 | |
| 4 | 6 | 6 | 0 | 6 | 5 | 2 | | 1222.5164 | | 0.3203E-03 | 4 | 12 | 3 | 10 | 11 | 2 | 10 | 1226.1652 | | 0.4462E-02 | |
| 6 | 25 | 2 | 23 | 25 | 3 | 22 | | 1222.5382 | 0.0012 | 0.7194E-02 | 6 | 22 | 1 | 21 | 22 | 2 | 20 | 1226.1674 | -0.0021 | 0.6528E-02 | |
| 4 | 11 | 3 | 8 | 10 | 2 | 8 | | 1222.6663 | | 0.5147E-02 | 6 | 3 | 1 | 2 | 3 | 2 | 1 | 1226.2955 | 0.0002 | 0.1142E-01 | |
| 6 | 8 | 1 | 8 | 8 | 2 | 7 | | 1222.7002 | -0.0001 | 0.1860E-01 | 4 | 26 | 5 | 21 | 27 | 2 | 25 | 1226.3168 | | 0.7407E-04 | |
| 6 | 30 | 2 | 28 | 30 | 3 | 27 | | 1222.7829 | | 0.1880E-02 | 6 | 14 | 4 | 11 | 13 | 5 | 8 | 1226.3396 | 0.0022 | 0.2448E-02 | |
| 6 | 4 | 2 | 3 | 3 | 3 | 0 | | 1222.8301 | -0.0003 | 0.1897E-02 | 6 | 14 | 4 | 10 | 13 | 5 | 9 | 1226.3448 | -0.0031 | 0.2449E-02 | |
| 6 | 12 | 1 | 12 | 13 | 0 | 13 | | 1222.8553 | -0.0001 | 0.3520E-01 | 6 | 10 | 3 | 8 | 9 | 4 | 5 | 1226.4043 | -0.0001 | 0.1640E-02 | |
| 6 | 4 | 2 | 2 | 3 | 3 | 1 | | 1222.8624 | | 0.1899E-02 | 6 | 10 | 3 | 7 | 9 | 4 | 6 | 1226.4344 | 0.0001 | 0.1642E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|------------|------------|----------|
| 4 | 14 | 4 | 10 | 15 | 1 | 14 | | 1228.5131 | | 0.2148E-02 | 6 | 11 | 1 | 10 | 11 | 2 | 9 | 1229.3375 | -0.0001 | 0.3155E-01 | |
| 4 | 13 | 3 | 10 | 12 | 2 | 10 | | 1228.5349 | | 0.4783E-02 | 4 | 10 | 7 | 4 | 10 | 6 | 4 | 1229.3619 | 0.8302E-04 | | |
| 6 | 4 | 1 | 3 | 4 | 2 | 2 | | 1228.5865 | 0.0000 | 0.1565E-01 | 4 | 10 | 7 | 3 | 10 | 6 | 5 | 1229.3619 | 0.8302E-04 | | |
| 6 | 16 | 2 | 15 | 17 | 1 | 18 | | 1228.7632 | 0.0005 | 0.2774E-01 | 4 | 6 | 5 | 1 | 5 | 4 | 1 | 1229.4315 | 0.1952E-02 | | |
| 4 | 14 | 2 | 13 | 13 | 1 | 13 | | 1228.7931 | 0.0000 | 0.1027E-01 | 4 | 6 | 5 | 2 | 5 | 4 | 2 | 1229.4315 | 0.1952E-02 | | |
| 6 | 18 | 5 | 14 | 17 | 6 | 11 | | 1228.9137 | | 0.2694E-03 | 4 | 9 | 7 | 3 | 9 | 6 | 3 | 1229.4557 | 0.7481E-04 | | |
| 6 | 18 | 5 | 13 | 17 | 6 | 12 | | 1228.9153 | | 0.2694E-03 | 4 | 9 | 7 | 2 | 9 | 6 | 4 | 1229.4557 | 0.7481E-04 | | |
| 6 | 5 | 1 | 4 | 5 | 2 | 3 | | 1228.9323 | 0.0000 | 0.1946E-01 | 4 | 8 | 7 | 2 | 8 | 6 | 2 | 1229.5400 | 0.5948E-04 | | |
| 4 | 5 | 6 | 1 | 4 | 4 | 1 | | 1227.0605 | | 0.1918E-02 | 4 | 8 | 7 | 1 | 8 | 6 | 3 | 1229.5400 | 0.5948E-04 | | |
| 4 | 5 | 5 | 0 | 4 | 4 | 0 | | 1227.0605 | | 0.1918E-02 | 6 | 17 | 1 | 18 | 17 | 2 | 15 | 1229.6246 | 0.0003 | 0.1963E-01 | |
| 6 | 21 | 1 | 20 | 21 | 2 | 19 | | 1227.1809 | -0.0015 | 0.8556E-02 | 6 | 12 | 1 | 11 | 12 | 2 | 10 | 1229.6302 | -0.0003 | 0.3109E-01 | |
| 6 | 6 | 1 | 5 | 6 | 2 | 4 | | 1227.3201 | 0.0000 | 0.2287E-01 | 6 | 14 | 0 | 14 | 14 | 1 | 13 | 1229.7395 | -0.0004 | 0.6903E-01 | |
| 6 | 22 | 6 | 16 | 21 | 7 | 15 | | 1227.5825 | | 0.1873E-03 | 6 | 23 | 6 | 17 | 22 | 7 | 16 | 1229.7968 | 0.1552E-03 | | |
| 6 | 6 | 2 | 5 | 5 | 3 | 2 | | 1227.8224 | -0.0001 | 0.7083E-02 | 6 | 13 | 1 | 12 | 13 | 2 | 11 | 1229.8442 | -0.0001 | 0.2987E-01 | |
| 6 | 22 | 6 | 17 | 21 | 7 | 14 | | 1227.8632 | | 0.1918E-03 | 6 | 16 | 1 | 15 | 16 | 2 | 14 | 1229.8654 | -0.0007 | 0.2267E-01 | |
| 6 | 7 | 1 | 6 | 7 | 2 | 5 | | 1227.7360 | 0.0001 | 0.2584E-01 | 6 | 23 | 6 | 18 | 22 | 7 | 15 | 1229.8969 | 0.1593E-03 | | |
| 6 | 6 | 2 | 4 | 5 | 3 | 3 | | 1227.7729 | 0.0001 | 0.7117E-02 | 6 | 4 | 0 | 4 | 5 | 1 | 5 | 1229.9146 | 0.0002 | 0.8478E-01 | |
| 6 | 15 | 0 | 15 | 15 | 1 | 14 | | 1227.8900 | -0.0003 | 0.5532E-01 | 4 | 13 | 4 | 9 | 14 | 1 | 13 | 1229.9216 | 0.1729E-02 | | |
| 6 | 5 | 0 | 5 | 6 | 1 | 8 | | 1227.9272 | 0.0000 | 0.9356E-01 | 6 | 14 | 1 | 13 | 14 | 2 | 12 | 1229.9637 | -0.0003 | 0.2796E-01 | |
| 4 | 17 | 1 | 16 | 16 | 0 | 16 | | 1227.9658 | | 0.3757E-02 | 6 | 15 | 1 | 14 | 15 | 2 | 13 | 1229.9749 | -0.0005 | 0.2551E-01 | |
| 6 | 20 | 1 | 19 | 20 | 2 | 18 | | 1228.0281 | -0.0012 | 0.1094E-01 | 6 | 7 | 2 | 6 | 6 | 3 | 3 | 1230.0018 | 0.0000 | 0.9604E-02 | |
| 4 | 9 | 4 | 5 | 8 | 3 | 5 | | 1228.0435 | 0.0000 | 0.8121E-02 | 4 | 15 | 3 | 12 | 14 | 2 | 12 | 1230.0421 | 0.4265E-02 | | |
| 4 | 9 | 4 | 6 | 8 | 3 | 6 | | 1228.0592 | 0.0000 | 0.8278E-02 | 6 | 15 | 2 | 14 | 16 | 1 | 15 | 1230.0974 | 0.0006 | 0.3154E-01 | |
| 4 | 19 | 2 | 17 | 18 | 1 | 17 | | 1228.1271 | -0.0001 | 0.1854E-01 | 4 | 15 | 2 | 14 | 14 | 1 | 14 | 1230.1486 | -0.0001 | 0.8430E-02 | |
| 6 | 8 | 1 | 7 | 8 | 2 | 6 | | 1228.1638 | -0.0001 | 0.2828E-01 | 4 | 25 | 5 | 20 | 26 | 2 | 24 | 1230.1890 | 0.8716E-04 | | |
| 4 | 14 | 3 | 11 | 13 | 2 | 11 | | 1228.3340 | | 0.4540E-02 | 6 | 7 | 2 | 5 | 6 | 3 | 4 | 1230.2725 | 0.0000 | 0.9681E-02 | |
| 6 | 10 | 1 | 10 | 11 | 0 | 11 | | 1228.5243 | 0.0001 | 0.3781E-01 | 4 | 10 | 4 | 6 | 9 | 3 | 6 | 1230.3173 | -0.0001 | 0.7443E-02 | |
| 6 | 9 | 1 | 8 | 9 | 2 | 7 | | 1228.5857 | 0.0001 | 0.3010E-01 | 4 | 10 | 4 | 7 | 9 | 3 | 7 | 1230.3496 | -0.0001 | 0.7718E-02 | |
| 4 | 18 | 7 | 10 | 18 | 8 | 10 | | 1228.5984 | | 0.5483E-04 | 4 | 20 | 2 | 18 | 19 | 1 | 18 | 1230.8951 | -0.0001 | 0.1349E-01 | |
| 4 | 16 | 7 | 9 | 16 | 8 | 11 | | 1228.5984 | | 0.5483E-04 | 6 | 16 | 4 | 13 | 15 | 5 | 10 | 1231.0397 | 0.0000 | 0.2173E-02 | |
| 4 | 13 | 3 | 11 | 12 | 2 | 11 | | 1228.8085 | | 0.4105E-02 | 6 | 16 | 4 | 12 | 15 | 5 | 11 | 1231.0551 | -0.0001 | 0.2176E-02 | |
| 6 | 15 | 4 | 12 | 14 | 5 | 9 | | 1228.8915 | 0.0005 | 0.2338E-02 | 4 | 14 | 3 | 12 | 13 | 2 | 12 | 1231.0764 | 0.3705E-02 | | |
| 6 | 15 | 4 | 11 | 14 | 5 | 10 | | 1228.7006 | 0.0000 | 0.2339E-02 | 6 | 12 | 3 | 10 | 11 | 4 | 7 | 1231.1467 | -0.0001 | 0.1739E-02 | |
| 6 | 19 | 1 | 18 | 19 | 2 | 17 | | 1228.7136 | -0.0011 | 0.1384E-01 | 6 | 12 | 3 | 9 | 11 | 4 | 8 | 1231.2344 | -0.0004 | 0.1745E-02 | |
| 4 | 15 | 7 | 8 | 15 | 8 | 10 | | 1228.7484 | | 0.6361E-04 | 6 | 27 | 1 | 27 | 26 | 2 | 24 | 1231.3615 | 0.8009E-04 | | |
| 4 | 15 | 7 | 9 | 15 | 6 | 9 | | 1228.7484 | | 0.6361E-04 | 6 | 9 | 1 | 9 | 10 | 0 | 10 | 1231.3986 | 0.0001 | 0.3790E-01 | |
| 6 | 11 | 3 | 9 | 10 | 4 | 6 | | 1228.7796 | 0.0000 | 0.1726E-02 | 6 | 13 | 0 | 13 | 13 | 1 | 12 | 1231.4327 | -0.0004 | 0.8408E-01 | |
| 6 | 11 | 3 | 8 | 10 | 4 | 7 | | 1228.8323 | 0.0002 | 0.1730E-02 | 6 | 20 | 5 | 16 | 19 | 6 | 13 | 1231.5134 | 0.2065E-03 | | |
| 4 | 14 | 7 | 8 | 14 | 6 | 8 | | 1228.8905 | | 0.7189E-04 | 6 | 20 | 5 | 15 | 19 | 6 | 14 | 1231.5184 | 0.2066E-03 | | |
| 4 | 14 | 7 | 7 | 14 | 8 | 9 | | 1228.8905 | | 0.7188E-04 | 4 | 18 | 3 | 13 | 15 | 2 | 13 | 1231.6620 | 0.3982E-02 | | |
| 6 | 10 | 1 | 9 | 10 | 2 | 8 | | 1228.9832 | 0.0000 | 0.3121E-01 | 4 | 12 | 3 | 10 | 12 | 0 | 12 | 1231.7477 | 0.5072E-04 | | |
| 4 | 13 | 7 | 7 | 13 | 6 | 7 | | 1228.9228 | | 0.7892E-04 | 4 | 7 | 5 | 2 | 6 | 4 | 2 | 1231.7937 | 0.1992E-02 | | |
| 4 | 13 | 7 | 6 | 13 | 6 | 8 | | 1229.0228 | | 0.7892E-04 | 4 | 7 | 5 | 3 | 6 | 4 | 3 | 1231.7937 | 0.1992E-02 | | |
| 4 | 12 | 7 | 5 | 12 | 6 | 7 | | 1229.1455 | | 0.8384E-04 | 6 | 3 | 0 | 3 | 4 | 1 | 4 | 1231.9682 | 0.0003 | 0.7419E-01 | |
| 4 | 12 | 7 | 6 | 12 | 6 | 6 | | 1229.1455 | | 0.8384E-04 | 6 | 24 | 6 | 18 | 23 | 7 | 17 | 1232.0017 | 0.1264E-03 | | |
| 6 | 19 | 5 | 15 | 18 | 6 | 12 | | 1229.2162 | | 0.2384E-03 | 6 | 24 | 6 | 19 | 23 | 7 | 18 | 1232.1249 | 0.1299E-03 | | |
| 6 | 19 | 5 | 14 | 18 | 6 | 13 | | 1229.2190 | | 0.2384E-03 | 4 | 18 | 1 | 17 | 17 | 0 | 17 | 1232.1259 | 0.2778E-02 | | |
| 6 | 22 | 3 | 20 | 23 | 2 | 21 | | 1229.2334 | | 0.1735E-02 | 6 | 8 | 2 | 7 | 7 | 3 | 4 | 1232.3681 | 0.0001 | 0.1182E-01 | |
| 6 | 18 | 1 | 17 | 18 | 2 | 18 | | 1229.2434 | -0.0008 | 0.1657E-01 | 4 | 13 | 3 | 11 | 13 | 0 | 13 | 1232.4126 | 0.6108E-04 | | |
| 4 | 11 | 7 | 5 | 11 | 6 | 5 | | 1229.2585 | | 0.8559E-04 | 4 | 11 | 4 | 7 | 10 | 3 | 7 | 1232.5598 | -0.0003 | 0.6673E-02 | |
| 4 | 11 | 7 | 4 | 11 | 6 | 6 | | 1229.2585 | | 0.8559E-04 | 6 | 3 | 1 | 3 | 2 | 2 | 0 | 1232.5981 | 0.1265E-02 | | |

| | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|-----|-----|-----|-----|-----|-----|-----|-----|-----------|----------|------------|------------|---|----|----|---|---|----|----|-----------|------------|-------------|
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0.0002 | 0.0000 | 0.0000 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.7105E-02 | 0.0003 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0.0001 | 0.1196E-01 | 0.1597E-04 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.9988E-01 | 0.1461E-03 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0.0002 | 0.3833E-02 | 0.2845E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.7118E-04 | 0.1465E-03 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 0.0001 | 0.3514E-01 | 0.3514E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.4889E-03 | 0.5898E-04 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 0.0002 | 0.1973E-02 | 0.4817E-01 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1973E-02 | 0.3061E-02 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 0.0001 | 0.1973E-02 | 0.1988E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1988E-02 | 0.1988E-02 |
| 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 0.0004 | 0.3514E-01 | 0.2055E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.7786E-04 | 0.8207E-04 |
| 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 0.0000 | 0.3280E-02 | 0.7953E-04 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1888E-02 | 0.2054E-02 |
| 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0.0001 | 0.1897E-02 | 0.9800E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1897E-02 | 0.3835E-01 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 0.0001 | 0.1972E-01 | 0.1492E-01 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1972E-01 | 0.2993E-02 |
| 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 0.0000 | 0.1933E-01 | 0.2993E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.9615E-04 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 0.0000 | 0.1933E-01 | 0.1418E+00 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.3628E-01 |
| 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 0.0000 | 0.1933E-01 | 0.5842E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.15179E-02 |
| 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 0.0000 | 0.1933E-01 | 0.2444E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.2110E-03 |
| 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 0.0000 | 0.1933E-01 | 0.1015E+00 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1501E+00 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 0.0000 | 0.1933E-01 | 0.6539E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1112E-03 |
| 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 0.0000 | 0.1933E-01 | 0.1515E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1530E-01 |
| 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 0.0000 | 0.1933E-01 | 0.2444E-02 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 84 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 104 | 104 | 104 | 104 | 104 | 104 | 104 | 104 | 104 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 106 | 106 | 106 | 106 | 106 | 106 | 106 | 106 | 106 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 112 | 112 | 112 | 112 | 112 | 112 | 112 | 112 | 112 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 114 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 116 | 0.0000 | 0.1933E-01 | 0.1015E-03 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 11 | 0.1933E-01 | 0.1515E-02 |
| 118 | 118 | 118 | 118 | 118 | 118 | 118 | 118 | 118 | 0.0000 | 0.1933E-01 | 0.1015E-03 | | | | | | | | | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 6 | 22 | 1 | 22 | | 21 | 2 | 19 | 1238.9354 | | 0.1155E-02 | 4 | 16 | 4 | 12 | | 15 | 3 | 12 | 1243.0703 | | 0.2780E-02 |
| 6 | 6 | 0 | 6 | | 6 | 1 | 5 | 1239.0276 | 0.0003 | 0.1513E+00 | 4 | 17 | 4 | 14 | | 18 | 1 | 18 | 1243.0730 | | 0.1455E-03 |
| 4 | 14 | 4 | 10 | | 13 | 3 | 10 | 1239.0380 | | 0.4211E-02 | 6 | 9 | 1 | 9 | | 8 | 2 | 6 | 1243.2391 | -0.0001 | 0.5826E-02 |
| 6 | 5 | 1 | 4 | | 4 | 2 | 3 | 1239.1550 | 0.0000 | 0.4831E-02 | 4 | 24 | 2 | 22 | | 23 | 1 | 22 | 1243.2988 | | 0.4376E-03 |
| 6 | 11 | 2 | 10 | | 10 | 3 | 7 | 1239.3278 | 0.0004 | 0.1570E-01 | 4 | 21 | 3 | 19 | | 21 | 0 | 21 | 1243.3458 | | 0.4575E-02 |
| 4 | 14 | 4 | 11 | | 13 | 3 | 11 | 1239.3293 | | 0.5232E-02 | 6 | 17 | 3 | 14 | | 16 | 4 | 13 | 1243.4150 | | 0.1054E-03 |
| 4 | 7 | 8 | 1 | | 6 | 5 | 1 | 1239.4460 | | 0.3000E-02 | 6 | 11 | 2 | 10 | | 12 | 1 | 11 | 1243.4279 | | 0.1117E-02 |
| 4 | 7 | 8 | 2 | | 6 | 5 | 2 | 1239.4460 | | 0.3000E-02 | 6 | 12 | 5 | 7 | | 11 | 4 | 7 | 1243.4520 | 0.0001 | 0.4287E-01 |
| 6 | 5 | 0 | 5 | | 5 | 1 | 4 | 1239.5858 | 0.0003 | 0.1427E+00 | 4 | 12 | 5 | 8 | | 11 | 4 | 8 | 1243.4843 | | 0.2036E-02 |
| 4 | 19 | 3 | 17 | | 19 | 0 | 19 | 1239.7087 | | 0.1049E-03 | 4 | 12 | 2 | 10 | | 11 | 3 | 9 | 1243.4858 | | 0.2039E-02 |
| 4 | 10 | 4 | 6 | | 11 | 1 | 10 | 1240.0148 | | 0.6787E-03 | 6 | 12 | 2 | 10 | | 11 | 3 | 9 | 1243.8626 | 0.0003 | 0.1674E-01 |
| 4 | 23 | 2 | 21 | | 22 | 1 | 21 | 1240.0208 | | 0.6245E-02 | 4 | 16 | 4 | 13 | | 15 | 3 | 13 | 1243.7288 | | 0.4095E-02 |
| 6 | 8 | 1 | 6 | | 7 | 0 | 7 | 1240.0275 | 0.0004 | 0.3254E-01 | 4 | 16 | 4 | 13 | | 17 | 1 | 17 | 1243.7549 | | 0.1914E-03 |
| 6 | 4 | 0 | 4 | | 4 | 1 | 3 | 1240.0377 | -0.0001 | 0.1278E+00 | 6 | 13 | 2 | 12 | | 12 | 3 | 9 | 1243.8044 | 0.0003 | 0.1576E-01 |
| 6 | 12 | 2 | 11 | | 13 | 1 | 12 | 1240.1377 | 0.0002 | 0.4099E-01 | 4 | 19 | 3 | 17 | | 18 | 2 | 17 | 1243.9104 | | 0.1639E-02 |
| 8 | 7 | 1 | 7 | | 6 | 2 | 4 | 1240.2165 | 0.0000 | 0.5602E-02 | 4 | 22 | 3 | 19 | | 21 | 2 | 19 | 1244.0785 | | 0.1193E-02 |
| 6 | 3 | 0 | 3 | | 3 | 1 | 2 | 1240.3904 | 0.0003 | 0.1087E+00 | 4 | 19 | 2 | 18 | | 18 | 1 | 18 | 1244.1257 | | 0.2747E-02 |
| 6 | 20 | 4 | 17 | | 19 | 5 | 14 | 1240.3927 | | 0.1287E-02 | 4 | 9 | 6 | 4 | | 8 | 5 | 4 | 1244.1405 | | 0.2981E-02 |
| 8 | 20 | 4 | 18 | | 19 | 5 | 15 | 1240.4812 | | 0.1293E-02 | 4 | 9 | 6 | 3 | | 8 | 5 | 3 | 1244.1405 | | 0.2981E-02 |
| 6 | 18 | 3 | 14 | | 15 | 4 | 11 | 1240.4843 | | 0.1276E-02 | 4 | 23 | 3 | 20 | | 22 | 2 | 20 | 1244.3010 | | 0.1476E-02 |
| 6 | 24 | 5 | 20 | | 23 | 6 | 17 | 1240.5414 | | 0.8845E-04 | 6 | 10 | 1 | 10 | | 9 | 2 | 7 | 1244.5035 | -0.0001 | 0.5482E-02 |
| 4 | 18 | 2 | 17 | | 17 | 1 | 17 | 1240.5554 | | 0.3851E-02 | 4 | 15 | 4 | 12 | | 16 | 1 | 18 | 1244.5768 | | 0.2406E-03 |
| 6 | 2 | 0 | 2 | | 2 | 1 | 1 | 1240.6497 | 0.0002 | 0.8043E-01 | 6 | 21 | 1 | 21 | | 20 | 2 | 18 | 1244.6260 | | 0.8724E-03 |
| 4 | 20 | 1 | 19 | | 19 | 0 | 19 | 1240.6764 | | 0.1368E-02 | 4 | 17 | 4 | 13 | | 16 | 3 | 13 | 1244.9698 | | 0.2190E-02 |
| 6 | 24 | 5 | 19 | | 23 | 6 | 18 | 1240.6823 | | 0.9659E-04 | 6 | 7 | 1 | 6 | | 8 | 2 | 5 | 1245.0157 | 0.0002 | 0.8196E-02 |
| 8 | 1 | 0 | 1 | | 1 | 1 | 0 | 1240.8201 | 0.0002 | 0.4999E-01 | 6 | 18 | 3 | 16 | | 17 | 4 | 13 | 1245.0217 | | 0.9183E-03 |
| 8 | 11 | 2 | 9 | | 10 | 3 | 8 | 1240.8279 | -0.0004 | 0.1626E-01 | 4 | 21 | 1 | 20 | | 20 | 0 | 20 | 1245.0278 | | 0.9009E-03 |
| 6 | 18 | 3 | 13 | | 15 | 4 | 12 | 1240.9508 | | 0.1294E-02 | 6 | 22 | 4 | 19 | | 21 | 5 | 18 | 1245.0371 | -0.0004 | 0.8749E-03 |
| 4 | 15 | 4 | 11 | | 14 | 3 | 11 | 1241.0892 | | 0.3458E-02 | 6 | 22 | 4 | 18 | | 21 | 5 | 17 | 1245.2242 | -0.0007 | 0.8838E-03 |
| 4 | 11 | 5 | 6 | | 10 | 4 | 6 | 1241.1608 | | 0.2061E-02 | 6 | 18 | 3 | 16 | | 19 | 2 | 17 | 1245.2438 | | 0.3948E-02 |
| 4 | 11 | 5 | 7 | | 10 | 4 | 7 | 1241.1615 | | 0.2062E-02 | 6 | 26 | 5 | 21 | | 25 | 8 | 28 | 1245.2520 | | 0.5954E-04 |
| 4 | 18 | 3 | 16 | | 17 | 2 | 16 | 1241.2675 | | 0.2013E-02 | 6 | 26 | 5 | 22 | | 25 | 6 | 19 | 1245.2767 | | 0.5875E-04 |
| 6 | 19 | 3 | 17 | | 20 | 2 | 18 | 1241.3704 | | 0.3280E-02 | 4 | 24 | 3 | 21 | | 23 | 2 | 21 | 1245.2811 | | 0.1423E-02 |
| 4 | 20 | 3 | 18 | | 20 | 0 | 20 | 1241.4865 | | 0.1063E-03 | 6 | 20 | 1 | 20 | | 19 | 2 | 17 | 1245.4746 | | 0.7731E-03 |
| 4 | 15 | 4 | 12 | | 14 | 3 | 12 | 1241.5352 | | 0.4648E-02 | 4 | 22 | 3 | 20 | | 22 | 0 | 22 | 1245.4878 | | 0.1025E-03 |
| 6 | 12 | 2 | 11 | | 11 | 3 | 8 | 1241.5869 | 0.0002 | 0.1597E-01 | 4 | 14 | 4 | 11 | | 15 | 1 | 15 | 1245.6332 | | 0.2866E-03 |
| 4 | 8 | 6 | 2 | | 7 | 5 | 2 | 1241.7980 | | 0.2999E-02 | 6 | 11 | 1 | 11 | | 10 | 2 | 8 | 1245.5819 | -0.0001 | 0.4928E-02 |
| 4 | 8 | 6 | 3 | | 7 | 5 | 3 | 1241.7980 | | 0.2999E-02 | 8 | 4 | 1 | 4 | | 5 | 0 | 5 | 1245.6483 | -0.0001 | 0.2440E-01 |
| 6 | 8 | 1 | 8 | | 7 | 2 | 5 | 1241.8043 | -0.0001 | 0.5885E-02 | 4 | 13 | 5 | 8 | | 12 | 4 | 8 | 1245.8010 | | 0.1990E-02 |
| 4 | 20 | 4 | 17 | | 21 | 1 | 21 | 1241.9089 | | 0.5264E-04 | 4 | 13 | 5 | 9 | | 12 | 4 | 9 | 1245.8044 | | 0.1995E-02 |
| 4 | 22 | 5 | 17 | | 23 | 2 | 21 | 1241.9933 | | 0.1205E-03 | 6 | 2 | 0 | 2 | | 1 | 1 | 1 | 1245.8309 | 0.0001 | 0.1749E-01 |
| 6 | 6 | 1 | 5 | | 5 | 2 | 4 | 1242.0483 | 0.0001 | 0.6566E-02 | 4 | 17 | 4 | 14 | | 16 | 3 | 14 | 1245.9128 | | 0.3574E-02 |
| 6 | 27 | 4 | 24 | | 28 | 3 | 25 | 1242.0743 | | 0.9014E-03 | 4 | 21 | 5 | 16 | | 22 | 2 | 20 | 1245.9312 | | 0.1269E-03 |
| 4 | 19 | 4 | 16 | | 20 | 1 | 20 | 1242.1462 | | 0.7573E-04 | 6 | 18 | 3 | 15 | | 17 | 4 | 14 | 1245.9340 | | 0.9372E-03 |
| 4 | 18 | 4 | 15 | | 19 | 1 | 19 | 1242.5354 | | 0.1065E-03 | 6 | 14 | 2 | 13 | | 13 | 3 | 10 | 1245.9727 | 0.0003 | 0.1512E-01 |
| 8 | 21 | 4 | 18 | | 20 | 5 | 15 | 1242.7184 | -0.0002 | 0.1071E-02 | 6 | 26 | 4 | 23 | | 27 | 3 | 24 | 1246.1825 | | 0.1228E-02 |
| 6 | 17 | 3 | 15 | | 16 | 4 | 12 | 1242.7879 | | 0.1097E-02 | 6 | 19 | 1 | 19 | | 18 | 2 | 16 | 1246.3028 | | 0.8355E-03 |
| 6 | 21 | 4 | 17 | | 20 | 5 | 18 | 1242.8483 | 0.0004 | 0.1079E-02 | 6 | 12 | 1 | 12 | | 11 | 2 | 9 | 1246.4587 | -0.0001 | 0.4251E-02 |
| 6 | 5 | 1 | 5 | | 6 | 0 | 6 | 1242.8599 | -0.0001 | 0.2890E-01 | 4 | 10 | 6 | 4 | | 9 | 5 | 4 | 1246.4738 | | 0.2941E-02 |
| 6 | 25 | 5 | 20 | | 24 | 8 | 19 | 1242.9675 | | 0.7846E-04 | 4 | 10 | 6 | 5 | | 9 | 5 | 5 | 1246.4738 | | 0.2941E-02 |
| 6 | 25 | 5 | 21 | | 24 | 6 | 18 | 1243.0474 | | 0.7281E-04 | 4 | 8 | 4 | 4 | | 9 | 1 | 8 | 1246.5275 | | 0.2578E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 6 | 13 | 2 | 11 | | 12 | 3 | 10 | 1246.5947 | 0.0002 | 0.1679E-01 | 4 | 24 | 3 | 22 | | 24 | 0 | 24 | 1250.0358 | 0.9125E-04 | |
| 4 | 20 | 3 | 18 | | 19 | 2 | 18 | 1246.5984 | | 0.1305E-02 | 4 | 20 | 4 | 18 | | 19 | 3 | 18 | 1250.0383 | 0.9835E-03 | |
| 4 | 7 | 7 | 1 | | 6 | 6 | 1 | 1246.6035 | | 0.4540E-03 | 4 | 27 | 3 | 24 | | 28 | 2 | 24 | 1250.1049 | 0.7733E-03 | |
| 4 | 7 | 7 | 0 | | 6 | 6 | 0 | 1246.6035 | | 0.4540E-03 | 6 | 23 | 3 | 20 | | 24 | 2 | 23 | 1250.1178 | 0.7478E-03 | |
| 4 | 13 | 4 | 10 | | 14 | 1 | 14 | 1246.6184 | | 0.3206E-03 | 6 | 16 | 2 | 15 | | 15 | 3 | 12 | 1250.1251 | 0.0004 | 0.1289E-01 |
| 4 | 25 | 3 | 22 | | 24 | 2 | 22 | 1246.6738 | | 0.1215E-02 | 6 | 25 | 4 | 22 | | 28 | 3 | 23 | 1250.1573 | 0.1852E-02 | |
| 8 | 28 | 3 | 25 | | 29 | 2 | 28 | 1246.7063 | | 0.6843E-04 | 6 | 29 | 4 | 25 | | 30 | 3 | 28 | 1250.2133 | 0.4071E-03 | |
| 8 | 10 | 2 | 9 | | 11 | 1 | 10 | 1246.7314 | 0.0002 | 0.4380E-01 | 4 | 19 | 4 | 18 | | 18 | 3 | 18 | 1250.2614 | 0.2834E-02 | |
| 4 | 18 | 4 | 14 | | 17 | 3 | 14 | 1246.7745 | | 0.1693E-02 | 4 | 28 | 2 | 24 | | 25 | 1 | 24 | 1250.4080 | 0.2253E-02 | |
| 4 | 25 | 2 | 23 | | 24 | 1 | 23 | 1246.8102 | | 0.3258E-02 | 4 | 15 | 5 | 10 | | 14 | 4 | 10 | 1250.4187 | 0.1838E-02 | |
| 8 | 18 | 1 | 18 | | 17 | 2 | 15 | 1246.9845 | | 0.1016E-02 | 4 | 15 | 5 | 11 | | 14 | 4 | 11 | 1250.4294 | 0.1853E-02 | |
| 8 | 13 | 1 | 13 | | 12 | 2 | 10 | 1247.1208 | -0.0002 | 0.3531E-02 | 4 | 10 | 4 | 7 | | 11 | 1 | 11 | 1250.5830 | 0.2801E-03 | |
| 6 | 27 | 3 | 24 | | 28 | 2 | 27 | 1247.1812 | | 0.1202E-03 | 6 | 4 | 0 | 4 | | 3 | 1 | 3 | 1251.0389 | 0.0001 | 0.5278E-01 |
| 6 | 19 | 3 | 17 | | 18 | 4 | 14 | 1247.2393 | | 0.7475E-03 | 6 | 2 | 1 | 2 | | 3 | 0 | 3 | 1251.0485 | -0.0003 | 0.1324E-01 |
| 6 | 23 | 4 | 20 | | 22 | 5 | 17 | 1247.3472 | | 0.7008E-03 | 6 | 20 | 3 | 17 | | 19 | 4 | 16 | 1251.0505 | 0.6019E-03 | |
| 6 | 17 | 1 | 17 | | 18 | 2 | 14 | 1247.4686 | 0.0003 | 0.1305E-02 | 4 | 12 | 6 | 7 | | 11 | 5 | 7 | 1251.1119 | 0.2782E-02 | |
| 8 | 14 | 1 | 14 | | 13 | 2 | 11 | 1247.5577 | 0.0001 | 0.2839E-02 | 4 | 12 | 6 | 6 | | 11 | 5 | 6 | 1251.1119 | 0.2782E-02 | |
| 6 | 23 | 4 | 19 | | 22 | 5 | 18 | 1247.6122 | | 0.7110E-03 | 6 | 9 | 1 | 8 | | 8 | 2 | 7 | 1251.1659 | -0.0001 | 0.1094E-01 |
| 4 | 23 | 3 | 21 | | 23 | 0 | 23 | 1247.6974 | | 0.9784E-04 | 6 | 22 | 3 | 19 | | 23 | 2 | 22 | 1251.1954 | 0.1070E-02 | |
| 6 | 16 | 1 | 16 | | 15 | 2 | 13 | 1247.7314 | -0.0001 | 0.1706E-02 | 4 | 9 | 7 | 2 | | 8 | 6 | 2 | 1251.2988 | 0.4482E-03 | |
| 4 | 20 | 2 | 19 | | 19 | 1 | 19 | 1247.7393 | | 0.1865E-02 | 4 | 9 | 7 | 3 | | 8 | 6 | 3 | 1251.2988 | 0.4482E-03 | |
| 8 | 26 | 3 | 23 | | 27 | 2 | 26 | 1247.7415 | | 0.2024E-03 | 4 | 21 | 2 | 26 | | 20 | 1 | 26 | 1251.3904 | 0.1190E-02 | |
| 6 | 15 | 1 | 15 | | 14 | 2 | 12 | 1247.7821 | 0.0002 | 0.2221E-02 | 4 | 21 | 4 | 17 | | 20 | 3 | 17 | 1251.4634 | 0.7133E-03 | |
| 4 | 12 | 4 | 9 | | 13 | 1 | 13 | 1247.8260 | | 0.3339E-03 | 6 | 21 | 3 | 19 | | 20 | 4 | 16 | 1251.5377 | 0.4557E-03 | |
| 6 | 8 | 1 | 7 | | 7 | 2 | 6 | 1248.0555 | 0.0000 | 0.9867E-02 | 6 | 25 | 4 | 22 | | 24 | 5 | 19 | 1251.9327 | 0.4248E-03 | |
| 6 | 15 | 2 | 14 | | 14 | 3 | 11 | 1248.0826 | 0.0004 | 0.1414E-01 | 4 | 28 | 3 | 25 | | 27 | 2 | 25 | 1252.0649 | 0.5905E-03 | |
| 4 | 18 | 4 | 15 | | 17 | 3 | 15 | 1248.0895 | | 0.3087E-02 | 6 | 17 | 2 | 16 | | 16 | 3 | 13 | 1252.0902 | 0.1148E-01 | |
| 4 | 14 | 5 | 9 | | 13 | 4 | 9 | 1248.1118 | | 0.1924E-02 | 4 | 22 | 3 | 20 | | 21 | 2 | 20 | 1252.1030 | 0.7898E-03 | |
| 4 | 14 | 5 | 10 | | 13 | 4 | 10 | 1248.1185 | | 0.1933E-02 | 4 | 9 | 4 | 6 | | 10 | 1 | 10 | 1252.1195 | 0.2203E-03 | |
| 4 | 26 | 3 | 23 | | 25 | 2 | 23 | 1248.3015 | | 0.9855E-03 | 6 | 28 | 4 | 24 | | 29 | 3 | 27 | 1252.1212 | 0.5897E-03 | |
| 6 | 3 | 1 | 3 | | 4 | 0 | 4 | 1248.3812 | -0.0001 | 0.1915E-01 | 6 | 21 | 3 | 18 | | 22 | 2 | 21 | 1252.4283 | 0.1483E-02 | |
| 6 | 3 | 0 | 3 | | 2 | 1 | 2 | 1248.4021 | 0.0000 | 0.3520E-01 | 4 | 20 | 4 | 17 | | 19 | 3 | 17 | 1252.4310 | 0.2218E-02 | |
| 6 | 25 | 3 | 22 | | 26 | 2 | 25 | 1248.4048 | | 0.3282E-03 | 6 | 25 | 4 | 21 | | 24 | 5 | 20 | 1252.4393 | 0.4365E-03 | |
| 4 | 19 | 4 | 15 | | 18 | 3 | 15 | 1248.4894 | | 0.1287E-02 | 4 | 25 | 3 | 23 | | 25 | 0 | 25 | 1252.4940 | 0.8368E-04 | |
| 6 | 19 | 3 | 16 | | 18 | 4 | 15 | 1248.4735 | | 0.7633E-03 | 6 | 16 | 3 | 14 | | 17 | 2 | 15 | 1252.6782 | 0.5471E-02 | |
| 4 | 11 | 6 | 5 | | 10 | 5 | 5 | 1248.7975 | | 0.2875E-02 | 4 | 16 | 5 | 11 | | 15 | 4 | 11 | 1252.7162 | 0.1734E-02 | |
| 4 | 11 | 6 | 6 | | 10 | 5 | 6 | 1248.7975 | | 0.2875E-02 | 4 | 22 | 4 | 18 | | 21 | 3 | 18 | 1252.7261 | 0.5245E-03 | |
| 4 | 8 | 7 | 1 | | 7 | 6 | 1 | 1248.9558 | | 0.4523E-03 | 4 | 16 | 5 | 12 | | 15 | 4 | 12 | 1252.7391 | 0.1757E-02 | |
| 4 | 8 | 7 | 2 | | 7 | 6 | 2 | 1248.9558 | | 0.4523E-03 | 6 | 15 | 2 | 13 | | 14 | 3 | 12 | 1252.7749 | 0.0003 | 0.1580E-01 |
| 8 | 17 | 3 | 15 | | 18 | 2 | 16 | 1249.0155 | | 0.4684E-02 | 4 | 8 | 4 | 2 | | 7 | 1 | 6 | 1252.7909 | 0.5987E-04 | |
| 4 | 11 | 4 | 8 | | 12 | 1 | 12 | 1249.1497 | | 0.3203E-03 | 6 | 8 | 2 | 7 | | 9 | 1 | 8 | 1253.1508 | -0.0001 | 0.4216E-01 |
| 6 | 24 | 3 | 21 | | 25 | 2 | 24 | 1249.1913 | | 0.5037E-03 | 4 | 13 | 6 | 7 | | 12 | 5 | 7 | 1253.4170 | 0.2684E-02 | |
| 4 | 21 | 3 | 19 | | 20 | 2 | 19 | 1249.3270 | | 0.1016E-02 | 4 | 13 | 6 | 8 | | 12 | 5 | 8 | 1253.4170 | 0.2684E-02 | |
| 4 | 22 | 1 | 21 | | 21 | 0 | 21 | 1249.4030 | | 0.5611E-03 | 6 | 22 | 3 | 20 | | 21 | 4 | 17 | 1253.6030 | 0.3408E-03 | |
| 6 | 20 | 3 | 18 | | 19 | 4 | 15 | 1249.4138 | | 0.5920E-03 | 4 | 10 | 7 | 3 | | 9 | 6 | 3 | 1253.6323 | 0.4409E-03 | |
| 6 | 14 | 2 | 12 | | 13 | 3 | 11 | 1249.6307 | 0.0003 | 0.1645E-01 | 4 | 10 | 7 | 4 | | 9 | 6 | 4 | 1253.6323 | 0.4409E-03 | |
| 6 | 24 | 4 | 21 | | 23 | 5 | 18 | 1249.6467 | | 0.5508E-03 | 6 | 1 | 1 | 1 | | 2 | 0 | 2 | 1253.6423 | -0.0002 | 0.6815E-02 |
| 4 | 7 | 4 | 3 | | 8 | 1 | 7 | 1249.6936 | | 0.1349E-03 | 6 | 21 | 3 | 18 | | 20 | 4 | 17 | 1253.6667 | 0.4575E-03 | |
| 4 | 20 | 5 | 15 | | 21 | 2 | 19 | 1249.8420 | | 0.1300E-03 | 4 | 19 | 5 | 14 | | 20 | 2 | 18 | 1253.7101 | 0.1293E-03 | |
| 6 | 9 | 2 | 8 | | 10 | 1 | 9 | 1249.9689 | 0.0001 | 0.4361E-01 | 6 | 5 | 0 | 5 | | 4 | 1 | 4 | 1253.7347 | -0.0001 | 0.8985E-01 |
| 6 | 24 | 4 | 20 | | 23 | 5 | 19 | 1250.0157 | | 0.5620E-03 | 4 | 8 | 4 | 5 | | 9 | 1 | 9 | 1253.7637 | 0.1532E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 4 | 23 | 1 | 22 | 22 | 0 | 22 | | 1253.7817 | | 0.3246E-03 | 6 | 18 | 2 | 16 | 19 | 1 | 19 | 1257.3131 | 0.0005 | 0.3992E-02 | |
| 4 | 23 | 4 | 19 | 22 | 3 | 19 | | 1253.8070 | | 0.3851E-03 | 6 | 11 | 2 | 9 | 12 | 1 | 12 | 1257.3566 | 0.0001 | 0.2228E-01 | |
| 6 | 20 | 3 | 17 | 21 | 2 | 20 | | 1253.8148 | | 0.1993E-02 | 4 | 18 | 5 | 14 | 17 | 4 | 14 | 1257.3656 | | 0.1530E-02 | |
| 8 | 18 | 2 | 17 | 17 | 3 | 14 | | 1253.9877 | 0.0002 | 0.9995E-02 | 6 | 27 | 4 | 23 | 26 | 5 | 22 | 1257.3669 | | 0.2502E-03 | |
| 8 | 24 | 4 | 21 | 25 | 3 | 22 | | 1253.9952 | | 0.2194E-02 | 6 | 20 | 2 | 19 | 19 | 3 | 16 | 1257.4221 | -0.0002 | 0.7101E-02 | |
| 4 | 27 | 2 | 25 | 28 | 1 | 25 | | 1254.1288 | | 0.1511E-02 | 4 | 24 | 4 | 21 | 24 | 1 | 23 | 1257.4629 | | 0.9796E-03 | |
| 6 | 27 | 4 | 23 | 28 | 3 | 26 | | 1254.1541 | | 0.8380E-03 | 4 | 11 | 3 | 8 | 10 | 0 | 10 | 1257.5098 | | 0.8449E-04 | |
| 4 | 29 | 3 | 26 | 28 | 2 | 28 | | 1254.1775 | | 0.4394E-03 | 4 | 25 | 4 | 22 | 25 | 1 | 24 | 1257.5111 | | 0.7617E-03 | |
| 8 | 28 | 4 | 23 | 25 | 5 | 20 | | 1254.2026 | | 0.3213E-03 | 4 | 18 | 5 | 13 | 19 | 2 | 17 | 1257.5199 | | 0.1249E-03 | |
| 8 | 10 | 1 | 9 | 9 | 2 | 8 | | 1254.3444 | -0.0002 | 0.1199E-01 | 6 | 24 | 3 | 22 | 23 | 4 | 19 | 1257.5222 | | 0.1739E-03 | |
| 4 | 21 | 4 | 18 | 20 | 3 | 18 | | 1254.8016 | | 0.1841E-02 | 4 | 27 | 5 | 23 | 28 | 2 | 27 | 1257.5253 | | 0.7213E-04 | |
| 6 | 24 | 2 | 23 | 23 | 3 | 26 | | 1254.8671 | | 0.2842E-03 | 4 | 28 | 5 | 24 | 29 | 2 | 28 | 1257.5770 | | 0.5839E-04 | |
| 6 | 28 | 4 | 22 | 25 | 5 | 21 | | 1254.8878 | | 0.3333E-03 | 4 | 23 | 4 | 20 | 23 | 1 | 22 | 1257.5854 | | 0.1243E-02 | |
| 4 | 23 | 3 | 21 | 22 | 2 | 21 | | 1254.9250 | | 0.5684E-03 | 6 | 11 | 1 | 10 | 10 | 2 | 9 | 1257.5881 | -0.0004 | 0.1279E-01 | |
| 6 | 30 | 2 | 29 | 29 | 3 | 26 | | 1254.9764 | | 0.6435E-04 | 6 | 23 | 4 | 20 | 24 | 3 | 21 | 1257.6948 | 0.0038R | 0.2873E-02 | |
| 4 | 17 | 5 | 12 | 16 | 4 | 12 | | 1255.0100 | | 0.1615E-02 | 4 | 27 | 3 | 25 | 27 | 0 | 27 | 1257.7347 | | 0.6661E-04 | |
| 4 | 17 | 5 | 13 | 16 | 4 | 13 | | 1255.0500 | | 0.1848E-02 | 4 | 26 | 4 | 23 | 26 | 1 | 25 | 1257.7386 | | 0.5855E-03 | |
| 4 | 28 | 3 | 24 | 28 | 0 | 26 | | 1255.0635 | | 0.7534E-04 | 4 | 24 | 3 | 22 | 23 | 2 | 22 | 1257.7928 | | 0.4080E-03 | |
| 4 | 22 | 2 | 21 | 21 | 1 | 21 | | 1255.0732 | | 0.7000E-03 | 4 | 26 | 5 | 22 | 27 | 2 | 28 | 1257.8101 | | 0.8784E-04 | |
| 6 | 19 | 3 | 16 | 20 | 2 | 19 | | 1255.3483 | | 0.2605E-02 | 4 | 22 | 4 | 19 | 22 | 1 | 21 | 1257.8671 | | 0.1554E-02 | |
| 6 | 25 | 2 | 24 | 24 | 3 | 21 | | 1255.3486 | | 0.2121E-03 | 4 | 28 | 2 | 26 | 27 | 1 | 28 | 1257.9587 | | 0.9807E-03 | |
| 4 | 7 | 4 | 4 | 8 | 1 | 8 | | 1255.4803 | | 0.9174E-04 | 4 | 15 | 6 | 9 | 14 | 5 | 9 | 1257.9991 | | 0.2363E-02 | |
| 6 | 29 | 2 | 28 | 28 | 3 | 25 | | 1255.5577 | | 0.7927E-04 | 4 | 15 | 6 | 10 | 14 | 5 | 10 | 1257.9991 | | 0.2363E-02 | |
| 6 | 23 | 3 | 21 | 22 | 4 | 18 | | 1255.6010 | | 0.2473E-03 | 4 | 9 | 8 | 2 | 8 | 7 | 2 | 1258.0795 | | 0.5342E-03 | |
| 4 | 14 | 6 | 8 | 13 | 5 | 8 | | 1255.7126 | | 0.2524E-02 | 4 | 9 | 8 | 1 | 8 | 7 | 1 | 1258.0795 | | 0.5342E-03 | |
| 4 | 14 | 6 | 9 | 13 | 5 | 9 | | 1255.7128 | | 0.2524E-02 | 4 | 24 | 1 | 23 | 23 | 0 | 23 | 1258.1458 | | 0.1690E-03 | |
| 4 | 8 | 8 | 1 | 7 | 7 | 1 | | 1255.7365 | | 0.5363E-03 | 4 | 27 | 4 | 24 | 27 | 1 | 26 | 1258.1509 | | 0.4458E-03 | |
| 4 | 8 | 8 | 0 | 7 | 7 | 0 | | 1255.7365 | | 0.5363E-03 | 4 | 12 | 7 | 6 | 11 | 6 | 6 | 1258.2709 | | 0.4147E-03 | |
| 6 | 19 | 2 | 18 | 18 | 3 | 15 | | 1255.7480 | 0.0001 | 0.8512E-02 | 4 | 12 | 7 | 5 | 11 | 6 | 5 | 1258.2709 | | 0.4147E-03 | |
| 6 | 26 | 2 | 25 | 25 | 3 | 22 | | 1255.7781 | | 0.1811E-03 | 4 | 21 | 4 | 18 | 21 | 1 | 20 | 1258.2939 | | 0.1907E-02 | |
| 6 | 15 | 2 | 13 | 16 | 1 | 16 | | 1255.8187 | 0.0003 | 0.9881E-02 | 6 | 10 | 2 | 8 | 11 | 1 | 11 | 1258.3166 | 0.0000 | 0.2540E-01 | |
| 6 | 14 | 2 | 12 | 15 | 1 | 15 | | 1255.8345 | 0.0001 | 0.1243E-01 | 6 | 19 | 2 | 17 | 20 | 1 | 20 | 1258.3298 | 0.0002 | 0.2857E-02 | |
| 6 | 28 | 2 | 27 | 27 | 3 | 24 | | 1255.8856 | | 0.9886E-04 | 4 | 25 | 5 | 21 | 26 | 2 | 25 | 1258.4023 | | 0.1018E-03 | |
| 4 | 11 | 7 | 4 | 10 | 6 | 4 | | 1255.9563 | | 0.4297E-03 | 6 | 25 | 4 | 21 | 26 | 3 | 24 | 1258.5338 | | 0.1600E-02 | |
| 4 | 11 | 7 | 5 | 10 | 6 | 5 | | 1255.9563 | | 0.4297E-03 | 6 | 1 | 1 | 0 | 1 | 0 | 1 | 1258.6648 | 0.0000 | 0.2081E-01 | |
| 6 | 27 | 2 | 26 | 26 | 3 | 23 | | 1255.9576 | | 0.1248E-03 | 6 | 28 | 4 | 25 | 27 | 5 | 22 | 1258.6765 | | 0.1732E-03 | |
| 6 | 16 | 2 | 14 | 15 | 3 | 13 | | 1258.0294 | 0.0002 | 0.1491E-01 | 4 | 28 | 4 | 25 | 28 | 1 | 27 | 1258.7502 | | 0.3362E-03 | |
| 6 | 16 | 2 | 14 | 17 | 1 | 17 | | 1258.0555 | 0.0002 | 0.7362E-02 | 4 | 23 | 2 | 22 | 22 | 1 | 22 | 1258.7811 | | 0.3860E-03 | |
| 6 | 13 | 2 | 11 | 14 | 1 | 14 | | 1258.1035 | 0.0003 | 0.1554E-01 | 6 | 17 | 3 | 14 | 18 | 2 | 17 | 1258.8151 | | 0.4114E-02 | |
| 6 | 15 | 3 | 13 | 16 | 2 | 14 | | 1258.2263 | | 0.6286E-02 | 6 | 2 | 1 | 1 | 2 | 0 | 2 | 1258.8250 | -0.0001 | 0.3359E-01 | |
| 6 | 7 | 2 | 8 | 8 | 1 | 7 | | 1258.2758 | -0.0002 | 0.3935E-01 | 4 | 20 | 4 | 17 | 20 | 1 | 19 | 1258.8494 | | 0.2294E-02 | |
| 6 | 26 | 4 | 22 | 27 | 3 | 25 | | 1258.2985 | | 0.1169E-02 | 4 | 23 | 4 | 20 | 22 | 3 | 20 | 1258.9583 | | 0.1210E-02 | |
| 6 | 22 | 3 | 19 | 21 | 4 | 18 | | 1258.3210 | | 0.3328E-03 | 6 | 21 | 2 | 20 | 20 | 3 | 17 | 1258.9829 | -0.0003 | 0.5810E-02 | |
| 4 | 30 | 3 | 27 | 29 | 2 | 27 | | 1258.4434 | | 0.3189E-03 | 6 | 23 | 3 | 20 | 22 | 4 | 19 | 1259.0077 | | 0.2293E-03 | |
| 6 | 27 | 4 | 24 | 28 | 5 | 21 | | 1258.4519 | | 0.2383E-03 | 6 | 3 | 1 | 2 | 3 | 0 | 3 | 1259.0697 | -0.0001 | 0.4480E-01 | |
| 6 | 8 | 0 | 8 | 5 | 1 | 5 | | 1258.4814 | 0.0000 | 0.8601E-01 | 4 | 24 | 5 | 20 | 25 | 2 | 24 | 1259.2873 | | 0.1137E-03 | |
| 6 | 17 | 2 | 15 | 18 | 1 | 18 | | 1258.5542 | 0.0004 | 0.5476E-02 | 6 | 7 | 0 | 7 | 6 | 1 | 6 | 1259.2893 | -0.0003 | 0.1009E+00 | |
| 6 | 12 | 2 | 10 | 13 | 1 | 13 | | 1258.6146 | 0.0002 | 0.1890E-01 | 6 | 6 | 2 | 5 | 7 | 1 | 8 | 1259.3367 | -0.0002 | 0.3516E-01 | |
| 4 | 22 | 4 | 19 | 21 | 3 | 19 | | 1258.7762 | | 0.1605E-02 | 6 | 25 | 3 | 23 | 24 | 4 | 20 | 1259.3573 | | 0.1181E-03 | |
| 6 | 18 | 3 | 15 | 19 | 2 | 18 | | 1257.0190 | | 0.3316E-02 | 6 | 17 | 2 | 15 | 18 | 3 | 14 | 1259.3940 | 0.0004 | 0.1384E-01 | |
| 4 | 18 | 5 | 13 | 17 | 4 | 13 | | 1257.2979 | | 0.1483E-02 | 6 | 4 | 1 | 3 | 4 | 0 | 4 | 1259.4050 | -0.0002 | 0.5399E-01 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 9 | 2 | 7 | 10 | 1 | 10 | | 1259.4758 | -0.0002 | 0.2792E-01 | 4 | 17 | 6 | 12 | 16 | 5 | 12 | 1262.5442 | | 0.2000E-02 | |
| 4 | 19 | 4 | 16 | 19 | 1 | 18 | | 1259.5157 | | 0.2895E-02 | 6 | 15 | 3 | 12 | 16 | 2 | 15 | 1262.7318 | | 0.5881E-02 | |
| 4 | 29 | 4 | 26 | 29 | 1 | 28 | | 1259.5363 | | 0.2518E-03 | 4 | 11 | 8 | 4 | 10 | 7 | 4 | 1262.7379 | | 0.5173E-03 | |
| 4 | 19 | 5 | 14 | 18 | 4 | 14 | | 1259.5789 | | 0.1342E-02 | 4 | 11 | 8 | 3 | 10 | 7 | 3 | 1262.7379 | | 0.5173E-03 | |
| 6 | 20 | 2 | 18 | 21 | 1 | 21 | | 1259.5999 | | 0.2011E-02 | 6 | 9 | 1 | 8 | 9 | 0 | 9 | 1262.7487 | -0.0002 | 0.6408E-01 | |
| 6 | 14 | 3 | 12 | 15 | 2 | 13 | | 1259.6558 | | 0.7095E-02 | 6 | 18 | 2 | 16 | 17 | 3 | 15 | 1262.8671 | 0.0005 | 0.1267E-01 | |
| 4 | 19 | 5 | 15 | 18 | 4 | 15 | | 1259.6908 | | 0.1405E-02 | 4 | 14 | 7 | 7 | 13 | 6 | 7 | 1262.8715 | | 0.3738E-03 | |
| 6 | 5 | 1 | 4 | 5 | 0 | 5 | | 1259.8383 | 0.0001 | 0.8083E-01 | 4 | 14 | 7 | 8 | 13 | 6 | 8 | 1262.8715 | | 0.3738E-03 | |
| 6 | 28 | 4 | 24 | 27 | 5 | 23 | | 1259.8827 | | 0.1847E-03 | 6 | 22 | 2 | 20 | 23 | 1 | 23 | 1262.8719 | | 0.9515E-03 | |
| 4 | 18 | 4 | 15 | 18 | 1 | 17 | | 1260.2744 | | 0.3082E-02 | 4 | 15 | 4 | 12 | 15 | 1 | 14 | 1262.9136 | | 0.3761E-02 | |
| 4 | 16 | 6 | 10 | 15 | 5 | 10 | | 1260.2761 | | 0.2187E-02 | 4 | 24 | 4 | 20 | 23 | 3 | 20 | 1262.9554 | | 0.2893E-02 | |
| 4 | 16 | 6 | 11 | 15 | 5 | 11 | | 1260.2782 | | 0.2187E-02 | 6 | 13 | 3 | 11 | 14 | 2 | 12 | 1262.9847 | | 0.7852E-02 | |
| 4 | 23 | 5 | 19 | 24 | 2 | 23 | | 1260.3698 | | 0.1231E-03 | 6 | 30 | 4 | 27 | 29 | 5 | 24 | 1263.0292 | | 0.8593E-04 | |
| 4 | 12 | 3 | 9 | 11 | 0 | 11 | | 1260.3737 | | 0.9912E-04 | 4 | 21 | 5 | 17 | 22 | 2 | 21 | 1263.1602 | | 0.1335E-03 | |
| 6 | 6 | 1 | 5 | 6 | 0 | 6 | | 1260.3784 | -0.0002 | 0.6517E-01 | 6 | 2 | 1 | 2 | 1 | 0 | 1 | 1263.1844 | 0.0000 | 0.2122E-01 | |
| 4 | 10 | 8 | 2 | 9 | 7 | 2 | | 1260.4135 | | 0.5282E-03 | 6 | 23 | 4 | 19 | 24 | 3 | 22 | 1263.2384 | -0.0008 | 0.2843E-02 | |
| 4 | 10 | 8 | 3 | 9 | 7 | 3 | | 1260.4135 | | 0.5282E-03 | 4 | 25 | 4 | 22 | 24 | 3 | 22 | 1263.3584 | | 0.7420E-03 | |
| 6 | 22 | 2 | 21 | 21 | 3 | 18 | | 1260.4257 | | 0.4672E-02 | 4 | 13 | 3 | 10 | 12 | 0 | 12 | 1263.3805 | | 0.1485E-03 | |
| 4 | 28 | 3 | 26 | 28 | 0 | 28 | | 1260.4984 | | 0.5788E-04 | 4 | 26 | 3 | 24 | 25 | 2 | 24 | 1263.6617 | | 0.1908E-03 | |
| 4 | 30 | 4 | 27 | 30 | 1 | 29 | | 1260.5082 | | 0.1872E-03 | 6 | 10 | 1 | 9 | 10 | 0 | 10 | 1263.8267 | -0.0002 | 0.6000E-01 | |
| 4 | 13 | 7 | 6 | 12 | 6 | 6 | | 1260.5760 | | 0.3959E-03 | 4 | 14 | 4 | 11 | 14 | 1 | 13 | 1263.8534 | | 0.3890E-02 | |
| 4 | 13 | 7 | 7 | 12 | 6 | 7 | | 1260.5760 | | 0.3959E-03 | 6 | 6 | 2 | 4 | 7 | 1 | 7 | 1263.9908 | -0.0001 | 0.2838E-01 | |
| 4 | 25 | 3 | 23 | 24 | 2 | 23 | | 1260.7058 | | 0.2839E-03 | 4 | 25 | 4 | 21 | 24 | 3 | 21 | 1264.0524 | | 0.2239E-02 | |
| 6 | 16 | 3 | 13 | 17 | 2 | 18 | | 1260.7238 | | 0.4979E-02 | 4 | 21 | 5 | 16 | 20 | 4 | 16 | 1264.1143 | | 0.1049E-02 | |
| 6 | 8 | 2 | 6 | 9 | 1 | 9 | | 1260.8199 | 0.0000 | 0.2948E-01 | 6 | 13 | 1 | 12 | 12 | 2 | 11 | 1264.2581 | -0.0003 | 0.1363E-01 | |
| 6 | 24 | 4 | 20 | 25 | 3 | 23 | | 1260.8521 | -0.0015 | 0.2152E-02 | 4 | 21 | 5 | 17 | 20 | 4 | 17 | 1264.3986 | | 0.1149E-02 | |
| 6 | 29 | 4 | 26 | 28 | 5 | 23 | | 1260.8718 | | 0.1233E-03 | 6 | 25 | 3 | 22 | 24 | 4 | 21 | 1264.4277 | | 0.8611E-04 | |
| 6 | 12 | 1 | 11 | 11 | 2 | 10 | | 1260.8934 | -0.0003 | 0.1334E-01 | 4 | 9 | 9 | 1 | 8 | 8 | 1 | 1264.5588 | | 0.5936E-04 | |
| 6 | 1 | 1 | 1 | 0 | 0 | 0 | | 1260.9287 | | 0.1418E-01 | 4 | 9 | 9 | 0 | 8 | 8 | 0 | 1264.5588 | | 0.5936E-04 | |
| 6 | 7 | 1 | 6 | 7 | 0 | 7 | | 1261.0359 | -0.0002 | 0.6702E-01 | 6 | 21 | 4 | 18 | 22 | 3 | 19 | 1264.6887 | -0.0001 | 0.4712E-02 | |
| 6 | 26 | 3 | 24 | 25 | 4 | 21 | | 1261.0959 | | 0.7731E-04 | 4 | 13 | 4 | 10 | 13 | 1 | 12 | 1264.7948 | | 0.3433E-02 | |
| 4 | 17 | 4 | 14 | 17 | 1 | 18 | | 1261.1061 | | 0.3418E-02 | 4 | 20 | 5 | 16 | 21 | 2 | 20 | 1264.7964 | | 0.1343E-03 | |
| 6 | 21 | 2 | 19 | 22 | 1 | 22 | | 1261.1167 | | 0.1393E-02 | 4 | 18 | 6 | 12 | 17 | 5 | 12 | 1264.8020 | | 0.1807E-02 | |
| 4 | 24 | 4 | 21 | 23 | 3 | 21 | | 1261.1511 | | 0.9560E-03 | 4 | 18 | 6 | 13 | 17 | 5 | 13 | 1264.8029 | | 0.1807E-02 | |
| 4 | 17 | 5 | 12 | 18 | 2 | 16 | | 1261.2574 | | 0.1169E-03 | 6 | 14 | 3 | 11 | 15 | 2 | 14 | 1264.8267 | | 0.6776E-02 | |
| 6 | 22 | 4 | 19 | 23 | 3 | 20 | | 1261.2578 | -0.0002 | 0.3708E-02 | 6 | 23 | 2 | 21 | 24 | 1 | 24 | 1264.8555 | | 0.8412E-03 | |
| 4 | 22 | 5 | 18 | 23 | 2 | 22 | | 1261.6766 | | 0.1298E-03 | 4 | 16 | 5 | 11 | 17 | 2 | 15 | 1264.9102 | | 0.1058E-03 | |
| 6 | 24 | 3 | 21 | 23 | 4 | 20 | | 1261.7158 | | 0.1473E-03 | 6 | 9 | 0 | 9 | 8 | 1 | 8 | 1264.9257 | -0.0003 | 0.1249E+00 | |
| 6 | 23 | 2 | 22 | 22 | 3 | 19 | | 1261.7489 | -0.0009 | 0.3700E-02 | 6 | 30 | 4 | 26 | 29 | 5 | 25 | 1265.0508 | | 0.9547E-04 | |
| 6 | 8 | 1 | 7 | 8 | 0 | 8 | | 1261.8221 | -0.0002 | 0.6855E-01 | 4 | 26 | 4 | 22 | 25 | 3 | 22 | 1265.0510 | | 0.1720E-02 | |
| 4 | 20 | 5 | 15 | 19 | 4 | 15 | | 1261.8818 | | 0.1196E-02 | 4 | 12 | 8 | 5 | 11 | 7 | 5 | 1265.0530 | | 0.5015E-03 | |
| 4 | 29 | 2 | 27 | 28 | 1 | 27 | | 1261.8801 | | 0.6138E-03 | 4 | 12 | 8 | 4 | 11 | 7 | 4 | 1265.0530 | | 0.5015E-03 | |
| 4 | 18 | 4 | 13 | 16 | 1 | 15 | | 1261.9919 | | 0.3659E-02 | 8 | 11 | 1 | 10 | 11 | 0 | 11 | 1265.0664 | -0.0001 | 0.5478E-01 | |
| 4 | 20 | 5 | 18 | 19 | 4 | 16 | | 1262.0321 | | 0.1277E-02 | 4 | 15 | 7 | 9 | 14 | 6 | 9 | 1265.1573 | | 0.3488E-03 | |
| 6 | 8 | 0 | 8 | 7 | 1 | 7 | | 1262.0879 | -0.0003 | 0.1139E+00 | 4 | 15 | 7 | 8 | 14 | 6 | 8 | 1265.1573 | | 0.3488E-03 | |
| 6 | 5 | 2 | 4 | 6 | 1 | 5 | | 1262.3262 | 0.0010 | 0.2961E-01 | 8 | 4 | 2 | 3 | 5 | 1 | 4 | 1265.2465 | -0.0002 | 0.2285E-01 | |
| 6 | 7 | 2 | 5 | 8 | 1 | 8 | | 1262.3308 | -0.0015 | 0.2973E-01 | 6 | 3 | 1 | 3 | 2 | 0 | 2 | 1265.3544 | -0.0001 | 0.2802E-01 | |
| 6 | 29 | 4 | 25 | 28 | 5 | 24 | | 1262.4417 | | 0.1340E-03 | 4 | 28 | 4 | 23 | 25 | 3 | 23 | 1265.5838 | | 0.5651E-03 | |
| 4 | 25 | 1 | 24 | 24 | 0 | 24 | | 1262.4779 | | 0.7426E-04 | 6 | 22 | 4 | 18 | 23 | 3 | 21 | 1265.6805 | 0.0000 | 0.3691E-02 | |
| 4 | 24 | 2 | 23 | 23 | 1 | 23 | | 1262.5068 | | 0.1579E-03 | 4 | 12 | 4 | 9 | 12 | 1 | 11 | 1265.7225 | | 0.3007E-02 | |
| 4 | 17 | 6 | 11 | 16 | 5 | 11 | | 1262.5437 | | 0.2000E-02 | 8 | 5 | 2 | 3 | 6 | 1 | 6 | 1265.7838 | -0.0002 | 0.2529E-01 | |

| STRENGTH | | | RESIDUAL | | | FREQUENCY | | | RESIDUAL | | | STRENGTH | | | |
|----------|----|----|----------|----|----|-----------|----|----|----------|-----------|------------|----------|----------|------------|------------|
| J | Ka | Kc | - | J | Ka | Kc | - | J | Ka | Kc | - | J | Ka | Kc | |
| 4 | 4 | 4 | 4 | 14 | 8 | 6 | 13 | 7 | 6 | 1268.8549 | 0.4558E-03 | 0 | 4558E-03 | 0.7608E-04 | |
| 4 | 4 | 4 | 4 | 14 | 8 | 6 | 27 | 2 | 26 | 1269.6948 | 0.2931E-03 | 0 | 2931E-03 | 0.2931E-03 | |
| 4 | 4 | 4 | 4 | 17 | 7 | 11 | 16 | 6 | 11 | 1269.7000 | 0.1069E-03 | 0 | 1069E-03 | 0.1069E-03 | |
| 4 | 4 | 4 | 4 | 17 | 7 | 11 | 16 | 6 | 10 | 1269.7000 | 0.1144E-01 | 0 | 1144E-01 | 0.1408E-01 | |
| 4 | 4 | 4 | 4 | 17 | 7 | 11 | 14 | 1 | 4 | 1269.7087 | -0.0002 | 0 | 4379E-03 | 0.4379E-03 | |
| 4 | 4 | 4 | 4 | 17 | 7 | 11 | 16 | 6 | 11 | 1269.7192 | 0.1600E-03 | 0 | 1600E-03 | 0.1600E-03 | |
| 4 | 4 | 4 | 4 | 28 | 3 | 26 | 14 | 6 | 14 | 1269.8210 | -0.0004 | 0 | 3660E-01 | 0.3660E-01 | |
| 4 | 4 | 4 | 4 | 28 | 3 | 26 | 15 | 3 | 12 | 1269.8994 | 0.3164E-03 | 0 | 3164E-03 | 0.3089E-03 | |
| 4 | 4 | 4 | 4 | 28 | 4 | 25 | 27 | 3 | 25 | 1270.1014 | 0.0006 | 0 | 1020E-01 | 0.1020E-01 | |
| 4 | 4 | 4 | 4 | 28 | 5 | 24 | 29 | 4 | 25 | 1270.3254 | 0.2108E-03 | 0 | 2108E-03 | 0.2108E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 17 | 5 | 13 | 1270.4373 | -0.0002 | 0 | 1174E-03 | 0.1174E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 17 | 6 | 13 | 1270.6113 | -0.0002 | 0 | 1390E+00 | 0.1390E+00 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 18 | 19 | 3 | 17 | 1270.6899 | 0.0000 | 0 | 5901E-02 | 0.5901E-02 |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 19 | 3 | 17 | 1270.8022 | -0.0002 | 0 | 6391E-03 | 0.6391E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 20 | 4 | 18 | 1270.8488 | -0.0002 | 0 | 7066E-02 | 0.7066E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 20 | 5 | 13 | 1270.8526 | 0.0000 | 0 | 7184E-04 | 0.7184E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 20 | 5 | 14 | 1271.1315 | -0.0005 | 0 | 1348E-01 | 0.1348E-01 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 20 | 5 | 15 | 1271.1827 | 0.0002 | 0 | 7249E-02 | 0.7249E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 20 | 5 | 16 | 1271.3934 | 0.0000 | 0 | 4544E-01 | 0.4544E-01 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 3 | 19 | 1270.8488 | -0.0002 | 0 | 8878E-02 | 0.8878E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 4 | 19 | 1270.8488 | -0.0002 | 0 | 1239E-02 | 0.1239E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 5 | 13 | 1271.1315 | -0.0005 | 0 | 1238E-02 | 0.1238E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 5 | 14 | 1271.1827 | 0.0002 | 0 | 1239E-02 | 0.1239E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 5 | 15 | 1271.5136 | 0.0000 | 0 | 5817E-04 | 0.5817E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 15 | 1271.5198 | 0.0000 | 0 | 8878E-02 | 0.8878E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 16 | 1271.6245 | 0.0000 | 0 | 1239E-02 | 0.1239E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 17 | 1271.5323 | 0.0000 | 0 | 5817E-04 | 0.5817E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 18 | 1271.5323 | -0.0004 | 0 | 3085E-01 | 0.3085E-01 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 19 | 1271.7869 | 0.0000 | 0 | 1604E-03 | 0.1604E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 20 | 1271.7917 | 0.0000 | 0 | 7736E-03 | 0.7736E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 21 | 1271.8174 | 0.0000 | 0 | 6785E-02 | 0.6785E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 22 | 1271.9197 | 0.0000 | 0 | 7787E-04 | 0.7787E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 23 | 1271.7563 | -0.0004 | 0 | 3085E-01 | 0.3085E-01 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 24 | 1271.7869 | 0.0000 | 0 | 1604E-03 | 0.1604E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 25 | 1271.7917 | 0.0000 | 0 | 7736E-03 | 0.7736E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 26 | 1271.8174 | 0.0000 | 0 | 6785E-02 | 0.6785E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 27 | 1271.9197 | 0.0000 | 0 | 7787E-04 | 0.7787E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 28 | 1272.1904 | 0.0000 | 0 | 9240E-02 | 0.9240E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 29 | 1272.4004 | 0.0000 | 0 | 2233E-03 | 0.2233E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 30 | 1272.5120 | 0.0000 | 0 | 1060E-03 | 0.1060E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 31 | 1272.9761 | 0.0000 | 0 | 5227E-03 | 0.5227E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 32 | 1273.0627 | 0.0000 | 0 | 2071E-03 | 0.2071E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 33 | 1273.2386 | 0.0000 | 0 | 7266E-02 | 0.7266E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 34 | 1273.2679 | 0.0000 | 0 | 6580E-04 | 0.6580E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 35 | 1273.2737 | 0.0000 | 0 | 4980E-01 | 0.4980E-01 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 36 | 1273.4365 | -0.0002 | 0 | 1417E+00 | 0.1417E+00 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 37 | 1273.4436 | 0.0000 | 0 | 4559E-03 | 0.4559E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 38 | 1273.7053 | 0.0000 | 0 | 1814E-03 | 0.1814E-03 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 39 | 1273.7397 | 0.0000 | 0 | 1064E-02 | 0.1064E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 40 | 1273.7476 | 0.0000 | 0 | 1066E-02 | 0.1066E-02 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 41 | 1273.8383 | 0.0000 | 0 | 5647E-04 | 0.5647E-04 | |
| 4 | 4 | 4 | 4 | 28 | 6 | 24 | 21 | 6 | 42 | 1273.8383 | 0.0000 | 0 | 5647E-04 | 0.5647E-04 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 10 | 3 | 7 | 11 | 2 | 10 | | 1273.8420 | | 0.9172E-02 | 6 | 6 | 2 | 4 | 6 | 1 | 5 | 1277.0211 | 0.0001 | 0.1237E+00 | |
| 6 | 18 | 1 | 15 | 16 | 0 | 16 | | 1273.8602 | -0.0004 | 0.2562E-01 | 4 | 11 | 4 | 7 | 11 | 1 | 11 | 1277.1541 | | 0.2410E-02 | |
| 6 | 21 | 2 | 19 | 20 | 3 | 18 | | 1273.8925 | 0.0006 | 0.8983E-02 | 4 | 26 | 5 | 22 | 25 | 4 | 22 | 1277.1895 | | 0.5657E-03 | |
| 6 | 15 | 2 | 13 | 15 | 1 | 14 | | 1274.1534 | 0.0012 | 0.1191E+00 | 4 | 17 | 3 | 14 | 18 | 0 | 16 | 1277.1934 | | 0.8593E-03 | |
| 6 | 14 | 2 | 12 | 14 | 1 | 13 | | 1274.1547 | -0.0001 | 0.1313E+00 | 4 | 27 | 5 | 22 | 28 | 4 | 22 | 1277.1997 | | 0.3308E-03 | |
| 4 | 19 | 7 | 13 | 18 | 6 | 13 | | 1274.2034 | | 0.2345E-03 | 6 | 17 | 4 | 14 | 18 | 3 | 15 | 1277.2505 | 0.0004 | 0.1040E-01 | |
| 4 | 19 | 7 | 12 | 18 | 6 | 12 | | 1274.2034 | | 0.2345E-03 | 6 | 28 | 5 | 21 | 27 | 4 | 24 | 1277.3907 | | 0.2841E-03 | |
| 4 | 18 | 8 | 8 | 15 | 7 | 8 | | 1274.2185 | | 0.3949E-03 | 6 | 5 | 2 | 3 | 5 | 1 | 4 | 1277.4420 | 0.0001 | 0.1071E+00 | |
| 4 | 18 | 8 | 9 | 15 | 7 | 9 | | 1274.2185 | | 0.3949E-03 | 6 | 21 | 2 | 19 | 21 | 1 | 20 | 1277.5848 | 0.0009 | 0.4241E-01 | |
| 4 | 7 | 4 | 3 | 7 | 1 | 7 | | 1274.2227 | | 0.3890E-03 | 6 | 22 | 2 | 20 | 21 | 3 | 19 | 1277.7491 | 0.0011 | 0.7822E-02 | |
| 6 | 18 | 4 | 15 | 19 | 3 | 18 | | 1274.2646 | 0.0005 | 0.8781E-02 | 6 | 28 | 2 | 26 | 29 | 1 | 29 | 1277.7613 | | 0.7363E-04 | |
| 6 | 13 | 2 | 11 | 13 | 1 | 12 | | 1274.2799 | 0.0004 | 0.1417E+00 | 6 | 4 | 2 | 2 | 4 | 1 | 3 | 1277.8171 | 0.0004 | 0.8749E-01 | |
| 6 | 16 | 2 | 14 | 16 | 1 | 15 | | 1274.2925 | 0.0004 | 0.1056E+00 | 6 | 8 | 3 | 6 | 9 | 2 | 7 | 1277.8217 | | 0.8800E-02 | |
| 4 | 25 | 5 | 21 | 24 | 4 | 21 | | 1274.4252 | | 0.8717E-03 | 4 | 12 | 4 | 8 | 12 | 1 | 12 | 1278.1198 | | 0.3165E-02 | |
| 6 | 12 | 2 | 10 | 12 | 1 | 11 | | 1274.5111 | 0.0004 | 0.1495E+00 | 6 | 3 | 2 | 1 | 3 | 1 | 2 | 1278.1331 | 0.0001 | 0.6471E-01 | |
| 6 | 17 | 2 | 15 | 17 | 1 | 16 | | 1274.5874 | 0.0006 | 0.9173E-01 | 4 | 24 | 6 | 18 | 23 | 5 | 18 | 1278.1499 | | 0.7569E-03 | |
| 6 | 27 | 5 | 22 | 28 | 4 | 25 | | 1274.5887 | | 0.2083E-03 | 6 | 17 | 1 | 16 | 18 | 2 | 15 | 1278.1611 | -0.0004 | 0.1248E-01 | |
| 6 | 16 | 1 | 15 | 15 | 2 | 14 | | 1274.6310 | -0.0005 | 0.1307E-01 | 4 | 24 | 6 | 19 | 23 | 5 | 19 | 1278.1697 | | 0.7605E-03 | |
| 4 | 15 | 5 | 11 | 16 | 2 | 15 | | 1274.6637 | | 0.9249E-04 | 6 | 2 | 2 | 0 | 2 | 1 | 1 | 1278.3793 | 0.0007 | 0.3770E-01 | |
| 4 | 30 | 4 | 27 | 29 | 3 | 27 | | 1274.7299 | | 0.1550E-03 | 6 | 17 | 4 | 13 | 18 | 3 | 16 | 1278.3845 | | 0.1042E-01 | |
| 4 | 8 | 4 | 4 | 8 | 1 | 8 | | 1274.8228 | | 0.7110E-03 | 4 | 15 | 9 | 6 | 14 | 8 | 6 | 1278.4218 | | 0.5123E-04 | |
| 6 | 27 | 2 | 25 | 28 | 1 | 28 | | 1274.8245 | | 0.1165E-03 | 4 | 15 | 9 | 7 | 14 | 8 | 7 | 1278.4218 | | 0.5123E-04 | |
| 6 | 11 | 2 | 9 | 11 | 1 | 10 | | 1274.8293 | 0.0003 | 0.1542E+00 | 6 | 18 | 1 | 17 | 18 | 0 | 18 | 1278.5330 | | 0.1700E-01 | |
| 6 | 9 | 3 | 7 | 10 | 2 | 8 | | 1275.0518 | | 0.9195E-02 | 6 | 8 | 3 | 5 | 9 | 2 | 8 | 1278.5958 | | 0.8780E-02 | |
| 6 | 18 | 2 | 16 | 18 | 1 | 17 | | 1275.0521 | 0.0004 | 0.7800E-01 | 6 | 10 | 1 | 10 | 9 | 0 | 9 | 1278.6664 | 0.0003 | 0.5714E-01 | |
| 6 | 8 | 1 | 8 | 7 | 0 | 7 | | 1275.1042 | 0.0001 | 0.5325E-01 | 4 | 21 | 7 | 15 | 20 | 6 | 15 | 1278.6667 | | 0.1785E-03 | |
| 4 | 26 | 5 | 21 | 25 | 4 | 21 | | 1275.1125 | | 0.4197E-03 | 4 | 21 | 7 | 14 | 20 | 6 | 14 | 1278.6667 | | 0.1786E-03 | |
| 6 | 10 | 2 | 8 | 10 | 1 | 9 | | 1275.2147 | 0.0003 | 0.1555E+00 | 4 | 18 | 8 | 11 | 17 | 7 | 11 | 1278.7435 | | 0.3256E-03 | |
| 4 | 13 | 5 | 6 | 14 | 2 | 12 | | 1275.2621 | | 0.6243E-04 | 4 | 18 | 8 | 10 | 17 | 7 | 10 | 1278.7435 | | 0.3256E-03 | |
| 4 | 9 | 4 | 5 | 9 | 1 | 9 | | 1275.5092 | | 0.1156E-02 | 6 | 22 | 2 | 20 | 22 | 1 | 21 | 1278.8401 | 0.0005 | 0.3329E-01 | |
| 6 | 9 | 2 | 7 | 9 | 1 | 8 | | 1275.8469 | 0.0001 | 0.1531E+00 | 6 | 2 | 2 | 1 | 2 | 1 | 2 | 1278.8605 | 0.0008 | 0.3692E-01 | |
| 6 | 19 | 2 | 17 | 19 | 1 | 18 | | 1275.8993 | 0.0001 | 0.6495E-01 | 6 | 14 | 0 | 14 | 13 | 1 | 13 | 1279.0035 | 0.0001 | 0.1382E+00 | |
| 6 | 18 | 4 | 14 | 19 | 3 | 17 | | 1275.8057 | 0.0002 | 0.8783E-02 | 6 | 3 | 2 | 2 | 3 | 1 | 3 | 1279.0887 | 0.0003 | 0.6205E-01 | |
| 4 | 23 | 6 | 17 | 22 | 5 | 17 | | 1275.9500 | | 0.9032E-03 | 4 | 13 | 5 | 9 | 14 | 2 | 13 | 1279.1567 | | 0.6243E-04 | |
| 4 | 23 | 6 | 18 | 22 | 5 | 18 | | 1275.9625 | | 0.9060E-03 | 4 | 13 | 4 | 9 | 13 | 1 | 13 | 1279.1857 | | 0.3954E-02 | |
| 6 | 8 | 2 | 6 | 8 | 1 | 7 | | 1278.1052 | -0.0003 | 0.1469E+00 | 4 | 28 | 5 | 23 | 27 | 4 | 23 | 1279.2264 | | 0.2559E-03 | |
| 6 | 17 | 1 | 16 | 17 | 0 | 17 | | 1278.1233 | | 0.2099E-01 | 6 | 25 | 5 | 21 | 26 | 4 | 22 | 1279.3893 | | 0.3629E-03 | |
| 4 | 14 | 9 | 6 | 13 | 8 | 8 | | 1278.1346 | | 0.5413E-04 | 6 | 4 | 2 | 3 | 4 | 1 | 4 | 1279.3954 | 0.0003 | 0.8166E-01 | |
| 4 | 14 | 9 | 5 | 13 | 8 | 5 | | 1278.1346 | | 0.5413E-04 | 6 | 5 | 2 | 4 | 5 | 1 | 5 | 1279.7821 | 0.0004 | 0.9675E-01 | |
| 6 | 9 | 3 | 8 | 10 | 2 | 9 | | 1278.2053 | | 0.9156E-02 | 4 | 27 | 5 | 23 | 28 | 4 | 23 | 1280.1143 | | 0.4688E-03 | |
| 6 | 13 | 0 | 13 | 12 | 1 | 12 | | 1278.2365 | -0.0001 | 0.1414E+00 | 6 | 16 | 4 | 13 | 17 | 3 | 14 | 1280.1514 | 0.0003 | 0.1210E-01 | |
| 6 | 26 | 5 | 22 | 27 | 4 | 23 | | 1278.2495 | | 0.2808E-03 | 6 | 25 | 5 | 20 | 28 | 4 | 23 | 1280.1880 | | 0.3816E-03 | |
| 4 | 10 | 4 | 6 | 10 | 1 | 10 | | 1278.2849 | | 0.1731E-02 | 6 | 6 | 2 | 5 | 6 | 1 | 3 | 1280.2511 | 0.0003 | 0.1076E+00 | |
| 4 | 20 | 7 | 14 | 19 | 6 | 14 | | 1278.4401 | | 0.2059E-03 | 6 | 23 | 2 | 21 | 23 | 1 | 22 | 1280.3112 | 0.0012 | 0.2587E-01 | |
| 4 | 20 | 7 | 13 | 19 | 6 | 13 | | 1278.4401 | | 0.2059E-03 | 4 | 25 | 6 | 19 | 24 | 5 | 19 | 1280.3394 | | 0.6262E-03 | |
| 4 | 17 | 8 | 9 | 18 | 7 | 9 | | 1278.4858 | | 0.3608E-03 | 4 | 14 | 4 | 10 | 14 | 1 | 14 | 1280.3551 | | 0.4733E-02 | |
| 4 | 17 | 8 | 10 | 18 | 7 | 10 | | 1278.4858 | | 0.3608E-03 | 4 | 30 | 5 | 28 | 30 | 2 | 28 | 1280.3668 | | 0.4879E-03 | |
| 6 | 20 | 2 | 18 | 20 | 1 | 19 | | 1278.5403 | 0.0007 | 0.5300E-01 | 4 | 25 | 6 | 20 | 24 | 5 | 20 | 1280.3700 | | 0.6305E-03 | |
| 6 | 7 | 2 | 5 | 7 | 1 | 6 | | 1278.5698 | -0.0004 | 0.1370E+00 | 6 | 11 | 1 | 11 | 10 | 0 | 10 | 1280.4253 | 0.0000 | 0.5750E-01 | |
| 4 | 14 | 5 | 10 | 15 | 2 | 14 | | 1278.8818 | | 0.7767E-04 | 6 | 7 | 3 | 5 | 8 | 2 | 6 | 1280.5120 | | 0.8017E-02 | |
| 6 | 9 | 1 | 9 | 8 | 0 | 8 | | 1278.8973 | | 0.5572E-01 | 6 | 7 | 2 | 6 | 7 | 1 | 7 | 1280.8049 | 0.0001 | 0.1143E+00 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 4 | 22 | 7 | 18 | 21 | 6 | 18 | | 1280.8831 | | 0.1529E-03 | 6 | 12 | 2 | 11 | 12 | 1 | 12 | 1284.9417 | 0.0006 | 0.9783E-01 | |
| 4 | 22 | 7 | 15 | 21 | 8 | 15 | | 1280.8834 | | 0.1529E-03 | 4 | 5 | 4 | 2 | 4 | 1 | 4 | 1285.0017 | | 0.5507E-04 | |
| 6 | 16 | 4 | 12 | 17 | 3 | 15 | | 1280.9692 | 0.0003 | 0.1213E-01 | 6 | 23 | 5 | 19 | 24 | 4 | 20 | 1285.2394 | | 0.6518E-03 | |
| 4 | 19 | 8 | 12 | 18 | 7 | 12 | | 1280.9913 | | 0.2901E-03 | 6 | 19 | 1 | 18 | 18 | 2 | 17 | 1285.2755 | -0.0008 | 0.1087E-01 | |
| 4 | 19 | 8 | 11 | 18 | 7 | 11 | | 1280.9913 | | 0.2901E-03 | 4 | 24 | 7 | 18 | 23 | 6 | 18 | 1285.2849 | | 0.1079E-03 | |
| 6 | 7 | 3 | 4 | 8 | 2 | 7 | | 1281.0070 | | 0.8008E-02 | 4 | 24 | 7 | 17 | 23 | 6 | 17 | 1285.2855 | | 0.1079E-03 | |
| 6 | 19 | 1 | 18 | 19 | 0 | 19 | | 1281.0739 | | 0.1361E-01 | 4 | 19 | 3 | 16 | 18 | 0 | 18 | 1285.3204 | | 0.1487E-02 | |
| 4 | 29 | 2 | 28 | 28 | 1 | 28 | | 1281.1067 | | 0.7491E-04 | 4 | 6 | 4 | 2 | 5 | 1 | 4 | 1285.3636 | | 0.1604E-03 | |
| 4 | 18 | 3 | 15 | 17 | 0 | 17 | | 1281.1544 | | 0.9707E-03 | 4 | 21 | 8 | 13 | 20 | 7 | 13 | 1285.4570 | | 0.2217E-03 | |
| 4 | 29 | 5 | 24 | 28 | 4 | 24 | | 1281.1866 | | 0.1944E-03 | 4 | 21 | 8 | 14 | 20 | 7 | 14 | 1285.4570 | | 0.2217E-03 | |
| 6 | 8 | 2 | 7 | 8 | 1 | 8 | | 1281.4459 | 0.0000 | 0.1171E+00 | 6 | 3 | 2 | 2 | 2 | 1 | 1 | 1285.6508 | 0.0001 | 0.7626E-01 | |
| 6 | 29 | 3 | 28 | 29 | 2 | 27 | | 1281.4587 | | 0.7827E-03 | 6 | 24 | 2 | 22 | 23 | 3 | 21 | 1285.6888 | 0.0014 | 0.5732E-02 | |
| 4 | 15 | 4 | 11 | 15 | 1 | 15 | | 1281.6309 | | 0.6456E-02 | 6 | 5 | 3 | 3 | 6 | 2 | 4 | 1285.7031 | | 0.5288E-02 | |
| 6 | 23 | 2 | 21 | 22 | 3 | 20 | | 1281.6841 | 0.0007 | 0.6734E-02 | 6 | 14 | 4 | 11 | 15 | 3 | 12 | 1285.7406 | 0.0001 | 0.1541E-01 | |
| 6 | 18 | 1 | 17 | 17 | 2 | 18 | | 1281.7126 | -0.0006 | 0.1173E-01 | 6 | 23 | 5 | 18 | 24 | 4 | 21 | 1285.7539 | | 0.8573E-03 | |
| 6 | 15 | 0 | 15 | 14 | 1 | 14 | | 1281.7319 | 0.0001 | 0.1325E+00 | 6 | 14 | 1 | 14 | 13 | 0 | 13 | 1285.7737 | 0.0003 | 0.5255E-01 | |
| 6 | 24 | 2 | 22 | 24 | 1 | 23 | | 1282.0004 | 0.0013 | 0.1945E-01 | 6 | 25 | 3 | 22 | 25 | 2 | 23 | 1285.8488 | -0.0004 | 0.3821E-02 | |
| 6 | 9 | 2 | 8 | 9 | 1 | 9 | | 1282.1772 | 0.0005 | 0.1184E+00 | 6 | 5 | 3 | 2 | 6 | 2 | 5 | 1285.8689 | | 0.5286E-02 | |
| 6 | 24 | 5 | 20 | 25 | 4 | 21 | | 1282.1827 | | 0.4512E-03 | 6 | 26 | 2 | 24 | 28 | 1 | 25 | 1286.0233 | 0.0019 | 0.1066E-01 | |
| 8 | 12 | 1 | 12 | 11 | 0 | 11 | | 1282.1877 | 0.0002 | 0.5680E-01 | 6 | 13 | 2 | 12 | 13 | 1 | 13 | 1286.0631 | 0.0004 | 0.8821E-01 | |
| 4 | 26 | 6 | 20 | 25 | 5 | 20 | | 1282.5175 | | 0.5114E-03 | 4 | 18 | 4 | 14 | 18 | 1 | 18 | 1286.1185 | | 0.6906E-02 | |
| 6 | 28 | 3 | 25 | 28 | 2 | 26 | | 1282.5827 | | 0.1225E-02 | 6 | 14 | 4 | 10 | 15 | 3 | 13 | 1286.1377 | 0.0005 | 0.1543E-01 | |
| 4 | 26 | 6 | 21 | 25 | 5 | 21 | | 1282.5845 | | 0.5185E-03 | 6 | 3 | 2 | 1 | 2 | 1 | 2 | 1286.1448 | 0.0000 | 0.7462E-01 | |
| 6 | 24 | 5 | 19 | 25 | 4 | 22 | | 1282.9768 | | 0.5048E-03 | 6 | 21 | 1 | 20 | 21 | 0 | 21 | 1286.4798 | | 0.8483E-02 | |
| 8 | 15 | 4 | 12 | 16 | 3 | 13 | | 1282.9780 | 0.0001 | 0.1380E-01 | 4 | 29 | 5 | 25 | 28 | 4 | 25 | 1286.5347 | | 0.2971E-03 | |
| 6 | 10 | 2 | 9 | 10 | 1 | 10 | | 1283.0016 | 0.0004 | 0.1125E+00 | 4 | 28 | 6 | 22 | 27 | 5 | 22 | 1286.8372 | | 0.3278E-03 | |
| 4 | 16 | 4 | 12 | 16 | 1 | 16 | | 1283.0156 | | 0.6078E-02 | 4 | 28 | 8 | 23 | 27 | 5 | 23 | 1286.9412 | | 0.3342E-03 | |
| 4 | 30 | 5 | 25 | 29 | 4 | 25 | | 1283.0493 | | 0.1450E-03 | 6 | 24 | 3 | 21 | 24 | 2 | 22 | 1286.9420 | -0.0002 | 0.5188E-02 | |
| 4 | 23 | 7 | 17 | 22 | 8 | 17 | | 1283.0894 | | 0.1293E-03 | 6 | 17 | 0 | 17 | 18 | 1 | 16 | 1287.0615 | 0.0000 | 0.1150E+00 | |
| 4 | 23 | 7 | 16 | 22 | 6 | 16 | | 1283.0896 | | 0.1293E-03 | 4 | 7 | 4 | 3 | 6 | 1 | 5 | 1287.2528 | | 0.3366E-03 | |
| 6 | 8 | 3 | 4 | 7 | 2 | 5 | | 1283.1351 | | 0.6837E-02 | 6 | 14 | 2 | 13 | 14 | 1 | 14 | 1287.2897 | 0.0008 | 0.7785E-01 | |
| 4 | 28 | 5 | 24 | 27 | 4 | 24 | | 1283.2248 | | 0.3766E-03 | 4 | 25 | 7 | 19 | 24 | 6 | 19 | 1287.4698 | | 0.8896E-04 | |
| 4 | 20 | 8 | 13 | 19 | 7 | 13 | | 1283.2291 | | 0.2552E-03 | 4 | 25 | 7 | 18 | 24 | 6 | 18 | 1287.4708 | | 0.8899E-04 | |
| 4 | 28 | 8 | 12 | 19 | 7 | 12 | | 1283.2291 | | 0.2552E-03 | 6 | 15 | 1 | 15 | 14 | 0 | 14 | 1287.6193 | 0.0001 | 0.4922E-01 | |
| 4 | 5 | 4 | 1 | 4 | 1 | 3 | | 1283.3910 | | 0.6105E-04 | 4 | 22 | 8 | 14 | 21 | 7 | 14 | 1287.6748 | | 0.1901E-03 | |
| 6 | 2 | 2 | 1 | 1 | 1 | 0 | | 1283.3973 | 0.0003 | 0.8952E-01 | 4 | 22 | 8 | 15 | 21 | 7 | 15 | 1287.6748 | | 0.1901E-03 | |
| 3 | 24 | 0 | 24 | 25 | 4 | 21 | | 1283.4050 | | 0.5289E-04 | 4 | 6 | 4 | 3 | 5 | 1 | 5 | 1287.7793 | | 0.1356E-03 | |
| 6 | 8 | 3 | 3 | 7 | 2 | 6 | | 1283.4330 | | 0.6833E-02 | 6 | 4 | 2 | 3 | 3 | 1 | 2 | 1287.8198 | 0.0003 | 0.8381E-01 | |
| 6 | 15 | 4 | 11 | 16 | 3 | 14 | | 1283.5551 | | 0.1383E-01 | 4 | 19 | 4 | 15 | 19 | 1 | 19 | 1287.8376 | | 0.7072E-02 | |
| 6 | 2 | 2 | 0 | 1 | 1 | 1 | | 1283.5565 | 0.0002 | 0.6902E-01 | 6 | 23 | 3 | 20 | 23 | 2 | 21 | 1288.0436 | -0.0003 | 0.6823E-02 | |
| 6 | 27 | 3 | 24 | 27 | 2 | 25 | | 1283.6643 | | 0.1858E-02 | 6 | 22 | 5 | 18 | 23 | 4 | 19 | 1288.1545 | | 0.8401E-03 | |
| 6 | 20 | 1 | 19 | 20 | 0 | 20 | | 1283.7289 | | 0.1080E-01 | 6 | 4 | 3 | 2 | 5 | 2 | 3 | 1288.2275 | | 0.3461E-02 | |
| 6 | 25 | 2 | 23 | 25 | 1 | 24 | | 1283.9060 | 0.0015 | 0.1451E-01 | 6 | 4 | 3 | 1 | 5 | 2 | 4 | 1288.3104 | | 0.3461E-02 | |
| 6 | 11 | 2 | 10 | 11 | 1 | 11 | | 1283.9221 | 0.0004 | 0.1081E+00 | 6 | 27 | 2 | 25 | 27 | 1 | 26 | 1288.3435 | 0.0022 | 0.7726E-02 | |
| 6 | 13 | 1 | 13 | 12 | 0 | 12 | | 1283.9666 | 0.0003 | 0.5512E-01 | 6 | 13 | 4 | 10 | 14 | 3 | 11 | 1288.4481 | 0.0002 | 0.1680E-01 | |
| 6 | 18 | 0 | 18 | 15 | 1 | 15 | | 1284.4182 | -0.0001 | 0.1248E+00 | 6 | 22 | 5 | 17 | 23 | 4 | 20 | 1288.5170 | | 0.8424E-03 | |
| 4 | 17 | 4 | 13 | 17 | 1 | 17 | | 1284.5112 | | 0.6570E-02 | 6 | 15 | 2 | 14 | 15 | 1 | 15 | 1288.6244 | 0.0006 | 0.6729E-01 | |
| 4 | 27 | 6 | 21 | 26 | 5 | 21 | | 1284.6838 | | 0.4121E-03 | 6 | 13 | 4 | 9 | 14 | 3 | 12 | 1288.7144 | 0.0001 | 0.1681E-01 | |
| 4 | 30 | 2 | 29 | 29 | 1 | 29 | | 1284.7540 | | 0.1156E-03 | 6 | 4 | 2 | 2 | 3 | 1 | 3 | 1288.8184 | 0.0003 | 0.8022E-01 | |
| 4 | 27 | 6 | 22 | 26 | 5 | 22 | | 1284.7542 | | 0.4180E-03 | 6 | 20 | 1 | 19 | 19 | 2 | 18 | 1288.8389 | -0.0012 | 0.9908E-02 | |
| 6 | 26 | 3 | 23 | 26 | 2 | 24 | | 1284.7584 | | 0.2715E-02 | 4 | 29 | 6 | 23 | 28 | 5 | 23 | 1288.9763 | | 0.2572E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | |
|---|----|----|----|---|----|----|----|-----------|----------|------------|------------|----|----|----|---|----|----|----|-----------|-----------|------------|------------|
| 4 | 8 | 4 | 4 | | 7 | 1 | 6 | 1289.6616 | | 0.6124E-03 | 6 | 29 | 2 | 27 | | 29 | 1 | 28 | 1293.5400 | | 0.3910E-02 | |
| 4 | 29 | 8 | 24 | | 28 | 5 | 24 | 1289.1279 | | 0.2842E-03 | 4 | 8 | 4 | 5 | | 7 | 1 | 7 | 1293.5680 | | 0.4241E-03 | |
| 6 | 22 | 3 | 19 | | 22 | 2 | 20 | 1289.1541 | -0.0003 | 0.8728E-02 | 4 | 22 | 4 | 18 | | 22 | 1 | 22 | 1293.6456 | | 0.6546E-02 | |
| 6 | 22 | 1 | 21 | | 22 | 0 | 22 | 1289.3071 | | 0.8804E-02 | 6 | 11 | 4 | 8 | | 12 | 3 | 9 | 1293.7311 | 0.0000 | 0.1841E-01 | |
| 6 | 18 | 1 | 18 | | 15 | 0 | 15 | 1289.5128 | 0.0005 | 0.4529E-01 | 6 | 20 | 5 | 16 | | 21 | 4 | 17 | 1293.8173 | | 0.1316E-02 | |
| 4 | 28 | 7 | 20 | | 25 | 6 | 20 | 1289.6437 | | 0.7240E-04 | 6 | 7 | 2 | 6 | | 6 | 1 | 5 | 1293.8350 | 0.0004 | 0.1005E+00 | |
| 4 | 28 | 7 | 19 | | 25 | 6 | 19 | 1289.6456 | | 0.7244E-04 | 6 | 11 | 4 | 7 | | 12 | 3 | 10 | 1293.8395 | | 0.1842E-01 | |
| 4 | 20 | 3 | 17 | | 19 | 0 | 19 | 1289.6588 | | 0.2449E-02 | 6 | 26 | 2 | 24 | | 25 | 3 | 23 | 1293.8883 | | 0.4016E-02 | |
| 8 | 18 | 0 | 18 | | 17 | 1 | 17 | 1289.6628 | 0.0000 | 0.1042E+00 | 6 | 20 | 5 | 15 | | 21 | 4 | 18 | 1293.9937 | | 0.1317E-02 | |
| 4 | 28 | 4 | 18 | | 20 | 1 | 20 | 1289.6672 | | 0.7083E-02 | 4 | 27 | 5 | 23 | | 27 | 2 | 25 | 1294.0085 | | 0.1070E-02 | |
| 6 | 25 | 2 | 23 | | 24 | 3 | 22 | 1289.7533 | | 0.4825E-02 | 4 | 11 | 4 | 7 | | 10 | 1 | 9 | 1294.0532 | | 0.2183E-02 | |
| 4 | 23 | 8 | 15 | | 22 | 7 | 15 | 1289.8824 | | 0.1610E-03 | 4 | 21 | 3 | 18 | | 20 | 0 | 20 | 1294.0631 | | 0.4468E-02 | |
| 4 | 23 | 8 | 18 | | 22 | 7 | 16 | 1289.8824 | | 0.1810E-03 | 4 | 25 | 8 | 17 | | 24 | 7 | 17 | 1294.2685 | | 0.1110E-03 | |
| 6 | 5 | 2 | 4 | | 4 | 1 | 3 | 1289.9053 | 0.0003 | 0.9074E-01 | 4 | 25 | 8 | 18 | | 24 | 7 | 18 | 1294.2685 | | 0.1110E-03 | |
| 8 | 30 | 3 | 27 | | 29 | 4 | 26 | 1290.0469 | | 0.2298E-03 | 6 | 6 | 2 | 4 | | 5 | 1 | 5 | 1294.4749 | 0.0002 | 0.8818E-01 | |
| 6 | 18 | 2 | 15 | | 18 | 1 | 16 | 1290.0704 | 0.0007 | 0.5895E-01 | 6 | 17 | 3 | 14 | | 17 | 2 | 15 | 1294.5328 | 0.0001 | 0.2193E-01 | |
| 6 | 21 | 3 | 18 | | 21 | 2 | 19 | 1290.2688 | -0.0002 | 0.1090E-01 | 6 | 20 | 0 | 20 | | 19 | 1 | 19 | 1294.7523 | -0.0004 | 0.8133E-01 | |
| 4 | 7 | 4 | 4 | | 6 | 1 | 6 | 1290.6337 | | 0.2810E-03 | 4 | 28 | 5 | 22 | | 28 | 2 | 24 | 1294.8270 | | 0.1135E-02 | |
| 8 | 3 | 3 | 1 | | 4 | 2 | 2 | 1290.7188 | | 0.1553E-02 | 6 | 19 | 2 | 18 | | 19 | 1 | 19 | 1295.1182 | 0.0004 | 0.3033E-01 | |
| 8 | 3 | 3 | 0 | | 4 | 2 | 3 | 1290.7542 | | 0.1553E-02 | 6 | 24 | 1 | 23 | | 24 | 0 | 24 | 1295.1190 | | 0.3892E-02 | |
| 4 | 9 | 4 | 5 | | 8 | 1 | 7 | 1290.7943 | | 0.1006E-02 | 6 | 18 | 3 | 13 | | 18 | 2 | 14 | 1295.4778 | 0.0002 | 0.2507E-01 | |
| 6 | 28 | 2 | 28 | | 28 | 1 | 27 | 1290.8542 | 0.0028 | 0.5528E-02 | 6 | 28 | 6 | 22 | | 29 | 5 | 25 | 1295.5255 | | 0.2523E-03 | |
| 6 | 21 | 5 | 17 | | 22 | 4 | 18 | 1291.0095 | | 0.1061E-02 | 6 | 19 | 1 | 19 | | 18 | 0 | 18 | 1295.5922 | | 0.3124E-01 | |
| 4 | 30 | 6 | 24 | | 29 | 5 | 24 | 1291.0991 | | 0.1991E-03 | 4 | 12 | 4 | 8 | | 11 | 1 | 18 | 1295.5924 | | 0.2958E-02 | |
| 8 | 12 | 4 | 9 | | 13 | 3 | 10 | 1291.1093 | 0.0002 | 0.1784E-01 | 6 | 28 | 6 | 23 | | 29 | 5 | 24 | 1295.8558 | | 0.2817E-03 | |
| 6 | 21 | 5 | 18 | | 22 | 4 | 19 | 1291.2640 | | 0.1062E-02 | 6 | 8 | 2 | 7 | | 7 | 1 | 6 | 1295.6848 | 0.0004 | 0.1029E+00 | |
| 6 | 12 | 4 | 8 | | 13 | 3 | 11 | 1291.2821 | 0.0002 | 0.1785E-01 | 4 | 23 | 4 | 19 | | 23 | 1 | 23 | 1295.7837 | | 0.6070E-02 | |
| 4 | 30 | 6 | 25 | | 29 | 5 | 25 | 1291.3173 | | 0.2084E-03 | 4 | 25 | 5 | 21 | | 25 | 2 | 23 | 1295.8462 | | 0.1157E-02 | |
| 6 | 20 | 3 | 17 | | 20 | 2 | 18 | 1291.3774 | -0.0001 | 0.1333E-01 | 6 | 22 | 1 | 21 | | 21 | 2 | 20 | 1295.9222 | -0.0018 | 0.7867E-02 | |
| 6 | 17 | 1 | 17 | | 16 | 0 | 16 | 1291.4635 | | 0.0004 | 0.4090E-01 | 6 | 10 | 4 | 7 | | 11 | 3 | 8 | 1296.3199 | 0.0000 | 0.1837E-01 |
| 6 | 5 | 2 | 3 | | 4 | 1 | 4 | 1291.5911 | 0.0003 | 0.8427E-01 | 6 | 15 | 3 | 12 | | 15 | 2 | 13 | 1296.3470 | 0.0001 | 0.2822E-01 | |
| 4 | 21 | 4 | 17 | | 21 | 1 | 21 | 1291.6047 | | 0.6884E-02 | 6 | 30 | 2 | 28 | | 30 | 1 | 29 | 1296.3828 | | 0.2735E-02 | |
| 6 | 17 | 2 | 16 | | 17 | 1 | 17 | 1291.8315 | 0.0007 | 0.4719E-01 | 6 | 10 | 4 | 6 | | 11 | 3 | 9 | 1296.3853 | 0.0003 | 0.1837E-01 | |
| 4 | 27 | 7 | 21 | | 28 | 6 | 21 | 1291.8062 | | 0.5816E-04 | 6 | 22 | 3 | 20 | | 23 | 0 | 23 | 1296.4418 | | 0.9876E-04 | |
| 4 | 27 | 7 | 20 | | 28 | 6 | 20 | 1291.8094 | | 0.5823E-04 | 4 | 26 | 8 | 18 | | 25 | 7 | 18 | 1296.4429 | | 0.9043E-04 | |
| 6 | 6 | 2 | 5 | | 5 | 1 | 4 | 1291.9095 | 0.0002 | 0.9842E-01 | 4 | 26 | 8 | 19 | | 25 | 7 | 19 | 1296.4429 | | 0.9044E-04 | |
| 4 | 24 | 8 | 17 | | 23 | 7 | 17 | 1292.0797 | | 0.1345E-03 | 6 | 21 | 3 | 19 | | 22 | 0 | 22 | 1296.4945 | | 0.1267E-03 | |
| 4 | 24 | 8 | 16 | | 23 | 7 | 18 | 1292.0797 | | 0.1345E-03 | 6 | 23 | 3 | 21 | | 24 | 0 | 24 | 1296.5405 | | 0.7493E-04 | |
| 6 | 23 | 1 | 22 | | 23 | 0 | 23 | 1292.1927 | | 0.5094E-02 | 6 | 19 | 5 | 15 | | 20 | 4 | 16 | 1296.5847 | | 0.1603E-02 | |
| 6 | 19 | 0 | 19 | | 18 | 1 | 18 | 1292.2250 | -0.0004 | 0.9286E-01 | 4 | 9 | 4 | 8 | | 8 | 1 | 8 | 1296.5881 | | 0.8045E-03 | |
| 6 | 21 | 1 | 20 | | 20 | 2 | 19 | 1292.3915 | -0.0015 | 0.8898E-02 | 6 | 20 | 3 | 18 | | 21 | 0 | 21 | 1296.7028 | | 0.1577E-03 | |
| 4 | 10 | 4 | 6 | | 9 | 1 | 8 | 1292.4562 | | 0.1530E-02 | 6 | 19 | 5 | 14 | | 20 | 4 | 17 | 1296.7050 | | 0.1604E-02 | |
| 6 | 19 | 3 | 16 | | 19 | 2 | 17 | 1292.4678 | -0.0002 | 0.1600E-01 | 6 | 24 | 3 | 22 | | 25 | 0 | 25 | 1296.7864 | | 0.5540E-04 | |
| 6 | 29 | 6 | 23 | | 30 | 5 | 26 | 1292.5674 | | 0.1793E-03 | 4 | 24 | 5 | 20 | | 24 | 2 | 22 | 1297.0181 | | 0.1143E-02 | |
| 6 | 29 | 6 | 24 | | 30 | 5 | 25 | 1292.6978 | | 0.1869E-03 | 6 | 20 | 2 | 19 | | 20 | 1 | 20 | 1297.0511 | 0.0002 | 0.2347E-01 | |
| 6 | 30 | 3 | 27 | | 30 | 2 | 28 | 1293.1349 | | 0.6705E-03 | 6 | 19 | 3 | 17 | | 20 | 0 | 20 | 1297.0712 | | 0.1903E-03 | |
| 4 | 29 | 5 | 25 | | 29 | 2 | 27 | 1293.1353 | | 0.8232E-03 | 4 | 13 | 4 | 9 | | 12 | 1 | 11 | 1297.0822 | | 0.3834E-02 | |
| 6 | 18 | 2 | 17 | | 18 | 1 | 18 | 1293.3118 | 0.0008 | 0.3828E-01 | 6 | 14 | 3 | 11 | | 14 | 2 | 12 | 1297.1306 | 0.0000 | 0.3126E-01 | |
| 4 | 28 | 5 | 24 | | 28 | 2 | 26 | 1293.4335 | | 0.9622E-03 | 6 | 21 | 0 | 21 | | 20 | 1 | 20 | 1297.2501 | -0.0005 | 0.7008E-01 | |
| 6 | 18 | 1 | 18 | | 17 | 0 | 17 | 1293.4832 | 0.0004 | 0.3619E-01 | 6 | 9 | 2 | 8 | | 8 | 1 | 7 | 1297.4625 | 0.0002 | 0.1034E+00 | |
| 6 | 18 | 3 | 15 | | 18 | 2 | 18 | 1293.5247 | -0.0001 | 0.1888E-01 | 6 | 7 | 2 | 5 | | 6 | 1 | 6 | 1297.4841 | 0.0002 | 0.8586E-01 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 18 | 3 | 16 | 19 | 0 | 19 | | 1297.6040 | | 0.2221E-03 | 4 | 28 | 8 | 21 | 27 | 7 | 21 | 1300.7635 | | 0.5775E-04 | |
| 6 | 13 | 3 | 10 | 13 | 2 | 11 | | 1297.8221 | 0.0003 | 0.3403E-01 | 4 | 28 | 8 | 20 | 27 | 7 | 20 | 1300.7637 | | 0.5775E-04 | |
| 6 | 20 | 1 | 20 | 19 | 0 | 19 | | 1297.8348 | -0.0001 | 0.2594E-01 | 6 | 14 | 3 | 12 | 14 | 2 | 13 | 1300.8124 | -0.0001 | 0.3079E-01 | |
| 6 | 24 | 2 | 23 | 24 | 1 | 24 | | 1298.0114 | | 0.5481E-02 | 6 | 11 | 2 | 10 | 10 | 1 | 9 | 1300.8213 | 0.0005 | 0.9925E-01 | |
| 6 | 27 | 2 | 25 | 28 | 3 | 24 | | 1298.0228 | | 0.3305E-02 | 8 | 15 | 3 | 13 | 15 | 2 | 14 | 1300.9919 | -0.0001 | 0.2780E-01 | |
| 6 | 25 | 1 | 24 | 25 | 0 | 25 | | 1298.0699 | | 0.2948E-02 | 4 | 21 | 5 | 17 | 21 | 2 | 19 | 1301.0002 | | 0.9730E-03 | |
| 6 | 22 | 1 | 22 | 21 | 0 | 21 | | 1298.2341 | | 0.8424E-02 | 6 | 26 | 1 | 25 | 26 | 0 | 26 | 1301.0319 | | 0.2207E-02 | |
| 4 | 23 | 5 | 19 | 23 | 2 | 21 | | 1298.2954 | | 0.1102E-02 | 6 | 16 | 3 | 14 | 16 | 2 | 15 | 1301.2148 | -0.0002 | 0.2429E-01 | |
| 6 | 17 | 3 | 15 | 18 | 0 | 18 | | 1298.3051 | | 0.2499E-03 | 6 | 22 | 2 | 21 | 22 | 1 | 22 | 1301.3450 | -0.0003 | 0.1299E-01 | |
| 6 | 12 | 3 | 9 | 12 | 2 | 10 | | 1298.4187 | 0.0001 | 0.3639E-01 | 4 | 16 | 4 | 12 | 15 | 1 | 14 | 1301.3524 | | 0.8756E-02 | |
| 6 | 27 | 6 | 21 | 28 | 5 | 24 | | 1298.4540 | | 0.3497E-03 | 6 | 26 | 6 | 20 | 27 | 5 | 23 | 1301.3638 | | 0.4772E-03 | |
| 4 | 14 | 4 | 10 | 13 | 1 | 12 | | 1298.5315 | | 0.4783E-02 | 6 | 8 | 4 | 5 | 9 | 3 | 6 | 1301.4191 | -0.0002 | 0.1602E-01 | |
| 6 | 27 | 6 | 22 | 28 | 5 | 23 | | 1298.5784 | | 0.3612E-03 | 6 | 14 | 3 | 12 | 15 | 0 | 15 | 1301.4371 | | 0.2772E-03 | |
| 4 | 27 | 8 | 20 | 28 | 7 | 20 | | 1298.6088 | | 0.7273E-04 | 6 | 8 | 4 | 4 | 9 | 3 | 7 | 1301.4392 | -0.0002 | 0.1602E-01 | |
| 4 | 27 | 8 | 19 | 26 | 7 | 19 | | 1298.6088 | | 0.7273E-04 | 6 | 26 | 6 | 21 | 27 | 5 | 22 | 1301.4686 | | 0.4913E-03 | |
| 6 | 9 | 4 | 6 | 10 | 3 | 7 | | 1298.8812 | 0.0000 | 0.1780E-01 | 6 | 17 | 3 | 15 | 17 | 2 | 16 | 1301.4847 | -0.0002 | 0.2101E-01 | |
| 6 | 9 | 4 | 5 | 10 | 3 | 8 | | 1298.9185 | | 0.1780E-01 | 6 | 23 | 1 | 23 | 22 | 0 | 22 | 1301.7167 | 0.0053R | 0.1205E-01 | |
| 6 | 11 | 3 | 8 | 11 | 2 | 9 | | 1298.9211 | -0.0005 | 0.3818E-01 | 6 | 18 | 3 | 16 | 18 | 2 | 17 | 1301.8057 | -0.0003 | 0.1785E-01 | |
| 6 | 21 | 2 | 20 | 21 | 1 | 21 | | 1299.1241 | 0.0000 | 0.1771E-01 | 6 | 17 | 5 | 13 | 18 | 4 | 14 | 1302.0186 | | 0.2252E-02 | |
| 6 | 10 | 2 | 9 | 9 | 1 | 8 | | 1299.1729 | 0.0005 | 0.1022E+00 | 6 | 17 | 5 | 12 | 18 | 4 | 15 | 1302.0710 | | 0.2252E-02 | |
| 6 | 16 | 3 | 14 | 17 | 0 | 17 | | 1299.1770 | | 0.2703E-03 | 6 | 19 | 3 | 17 | 19 | 2 | 18 | 1302.1812 | 0.0001 | 0.1492E-01 | |
| 6 | 18 | 5 | 14 | 19 | 4 | 15 | | 1299.3171 | | 0.1918E-02 | 6 | 23 | 0 | 23 | 22 | 1 | 22 | 1302.1823 | -0.0009 | 0.4961E-01 | |
| 6 | 10 | 3 | 7 | 10 | 2 | 8 | | 1299.3334 | 0.0000 | 0.3917E-01 | 6 | 28 | 2 | 26 | 27 | 3 | 25 | 1302.2054 | | 0.2688E-02 | |
| 6 | 18 | 5 | 13 | 19 | 4 | 18 | | 1299.3975 | | 0.1919E-02 | 4 | 20 | 5 | 16 | 20 | 2 | 18 | 1302.3591 | | 0.8942E-03 | |
| 6 | 23 | 1 | 22 | 22 | 2 | 21 | | 1299.4204 | -0.0019 | 0.6847E-02 | 6 | 12 | 2 | 11 | 11 | 1 | 10 | 1302.4143 | 0.0003 | 0.9483E-01 | |
| 4 | 22 | 5 | 18 | 22 | 2 | 20 | | 1299.6353 | | 0.1044E-02 | 6 | 20 | 3 | 18 | 20 | 2 | 19 | 1302.6147 | -0.0004 | 0.1226E-01 | |
| 6 | 9 | 3 | 8 | 9 | 2 | 7 | | 1299.8628 | 0.0002 | 0.3925E-01 | 6 | 26 | 2 | 25 | 26 | 1 | 26 | 1302.6987 | | 0.4107E-02 | |
| 4 | 10 | 4 | 7 | 9 | 1 | 9 | | 1299.8925 | | 0.7719E-03 | 4 | 17 | 4 | 13 | 16 | 1 | 15 | 1302.7482 | | 0.7700E-02 | |
| 8 | 22 | 0 | 22 | 21 | 1 | 21 | | 1299.7245 | -0.0007 | 0.5942E-01 | 6 | 13 | 3 | 11 | 14 | 0 | 14 | 1302.8220 | | 0.2807E-03 | |
| 6 | 8 | 3 | 5 | 8 | 2 | 6 | | 1299.9187 | -0.0001 | 0.3823E-01 | 6 | 24 | 1 | 23 | 23 | 2 | 22 | 1302.8762 | -0.0024 | 0.5883E-02 | |
| 4 | 15 | 4 | 11 | 14 | 1 | 13 | | 1299.9516 | | 0.5770E-02 | 4 | 11 | 4 | 8 | 10 | 1 | 10 | 1302.8928 | | 0.8956E-03 | |
| 6 | 7 | 3 | 4 | 7 | 2 | 5 | | 1300.1111 | 0.0001 | 0.3600E-01 | 6 | 21 | 3 | 19 | 21 | 2 | 20 | 1303.1097 | -0.0007 | 0.9908E-02 | |
| 6 | 15 | 3 | 13 | 16 | 0 | 16 | | 1300.2212 | | 0.2801E-03 | 4 | 22 | 3 | 19 | 21 | 0 | 21 | 1303.3752 | | 0.1202E-01 | |
| 6 | 8 | 3 | 3 | 8 | 2 | 4 | | 1300.2510 | -0.0002 | 0.3243E-01 | 6 | 22 | 3 | 20 | 22 | 2 | 21 | 1303.6696 | -0.0014 | 0.7884E-02 | |
| 6 | 25 | 2 | 24 | 25 | 1 | 25 | | 1300.3195 | | 0.4814E-02 | 4 | 19 | 5 | 15 | 19 | 2 | 17 | 1303.6851 | | 0.8098E-03 | |
| 6 | 21 | 1 | 21 | 20 | 0 | 20 | | 1300.3268 | | 0.1980E-01 | 6 | 23 | 2 | 22 | 23 | 1 | 23 | 1303.7255 | -0.0004 | 0.9256E-02 | |
| 6 | 5 | 3 | 2 | 5 | 2 | 3 | | 1300.3490 | -0.0002 | 0.2741E-01 | 6 | 7 | 4 | 4 | 8 | 3 | 5 | 1303.9373 | 0.0052 | 0.1381E-01 | |
| 6 | 8 | 3 | 6 | 8 | 2 | 7 | | 1300.4019 | 0.0008 | 0.3821E-01 | 6 | 9 | 2 | 7 | 8 | 1 | 8 | 1303.9423 | 0.0003 | 0.7791E-01 | |
| 6 | 7 | 3 | 5 | 7 | 2 | 6 | | 1300.4037 | -0.0012 | 0.3599E-01 | 6 | 7 | 4 | 3 | 8 | 3 | 6 | 1303.9474 | -0.0049 | 0.1361E-01 | |
| 6 | 9 | 3 | 7 | 9 | 2 | 8 | | 1300.4128 | 0.0011 | 0.3921E-01 | 6 | 13 | 2 | 12 | 12 | 1 | 11 | 1303.9595 | 0.0006 | 0.8913E-01 | |
| 6 | 4 | 3 | 1 | 4 | 2 | 2 | | 1300.4148 | -0.0009 | 0.2076E-01 | 6 | 27 | 1 | 28 | 27 | 0 | 27 | 1303.9939 | | 0.1636E-02 | |
| 6 | 8 | 3 | 4 | 6 | 2 | 5 | | 1300.4148 | -0.0009 | 0.3243E-01 | 4 | 18 | 4 | 14 | 17 | 1 | 16 | 1304.1516 | | 0.8559E-02 | |
| 6 | 5 | 3 | 3 | 5 | 2 | 4 | | 1300.4313 | 0.0000 | 0.2741E-01 | 6 | 25 | 6 | 19 | 26 | 5 | 22 | 1304.2287 | | 0.6411E-03 | |
| 6 | 10 | 3 | 8 | 10 | 2 | 9 | | 1300.4410 | 0.0001 | 0.3910E-01 | 6 | 23 | 3 | 21 | 23 | 2 | 22 | 1304.2977 | -0.0009 | 0.6178E-02 | |
| 6 | 4 | 3 | 2 | 4 | 2 | 3 | | 1300.4502 | -0.0001 | 0.2076E-01 | 6 | 25 | 6 | 20 | 26 | 5 | 21 | 1304.3289 | | 0.6581E-03 | |
| 6 | 3 | 3 | 0 | 3 | 2 | 1 | | 1300.4569 | -0.0002 | 0.1206E-01 | 6 | 12 | 3 | 10 | 13 | 0 | 13 | 1304.3701 | | 0.2321E-03 | |
| 6 | 3 | 3 | 1 | 3 | 2 | 2 | | 1300.4688 | -0.0004 | 0.1206E-01 | 6 | 24 | 1 | 24 | 23 | 0 | 23 | 1304.5486 | | 0.1216E-01 | |
| 6 | 11 | 3 | 9 | 11 | 2 | 10 | | 1300.4906 | 0.0001 | 0.3804E-01 | 6 | 24 | 0 | 24 | 23 | 1 | 23 | 1304.6302 | -0.0010 | 0.4080E-01 | |
| 6 | 12 | 3 | 10 | 12 | 2 | 11 | | 1300.5660 | 0.0000 | 0.3618E-01 | 6 | 18 | 5 | 12 | 17 | 4 | 13 | 1304.6924 | | 0.2590E-02 | |
| 6 | 8 | 2 | 6 | 7 | 1 | 7 | | 1300.6342 | 0.0004 | 0.8282E-01 | 6 | 18 | 5 | 11 | 17 | 4 | 14 | 1304.7258 | | 0.2591E-02 | |
| 6 | 13 | 3 | 11 | 13 | 2 | 12 | | 1300.6718 | 0.0002 | 0.3371E-01 | 4 | 18 | 5 | 14 | 18 | 2 | 16 | 1304.9564 | | 0.7215E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|----|-----------|----------|------------|
| 6 | 24 | 3 | 22 | 24 | 2 | 23 | | 1304.9986 | -0.0012 | 0.4769E-02 | 6 | 14 | 5 | 10 | 15 | 4 | 11 | | 1309.9680 | | 0.3205E-02 |
| 6 | 27 | 2 | 28 | 27 | 1 | 27 | | 1305.1400 | | 0.3402E-02 | 6 | 23 | 6 | 18 | 24 | 5 | 19 | | 1309.9688 | | 0.1127E-02 |
| 6 | 14 | 2 | 13 | 13 | 1 | 12 | | 1305.4661 | 0.0007 | 0.8241E-01 | 6 | 14 | 5 | 9 | 15 | 4 | 12 | | 1309.9805 | | 0.3205E-02 |
| 4 | 19 | 4 | 15 | 18 | 1 | 17 | | 1305.5767 | | 0.9296E-02 | 4 | 13 | 5 | 9 | 13 | 2 | 11 | | 1309.9829 | | 0.2837E-03 |
| 6 | 25 | 3 | 23 | 25 | 2 | 24 | | 1305.7742 | | 0.3829E-02 | 4 | 22 | 4 | 18 | 21 | 1 | 20 | | 1310.1136 | | 0.1040E-01 |
| 6 | 11 | 3 | 9 | 12 | 0 | 12 | | 1306.0730 | | 0.1943E-03 | 6 | 4 | 3 | 2 | 3 | 2 | 1 | | 1310.1530 | -0.0001 | 0.3782E-01 |
| 4 | 17 | 5 | 13 | 17 | 2 | 15 | | 1306.1549 | | 0.8308E-03 | 6 | 4 | 3 | 1 | 3 | 2 | 2 | | 1310.1650 | -0.0002 | 0.3782E-01 |
| 4 | 12 | 4 | 9 | 11 | 1 | 11 | | 1306.1925 | | 0.9546E-03 | 6 | 29 | 2 | 28 | 29 | 1 | 29 | | 1310.1780 | | 0.2140E-02 |
| 4 | 24 | 4 | 20 | 24 | 1 | 24 | | 1306.2795 | | 0.8386E-02 | 6 | 30 | 2 | 28 | 29 | 3 | 27 | | 1310.6064 | | 0.1716E-02 |
| 6 | 25 | 1 | 24 | 24 | 2 | 23 | | 1306.2814 | | 0.4940E-02 | 4 | 12 | 5 | 8 | 12 | 2 | 10 | | 1310.8700 | | 0.2119E-03 |
| 6 | 29 | 2 | 27 | 28 | 3 | 26 | | 1306.4042 | | 0.2161E-02 | 6 | 30 | 3 | 28 | 30 | 2 | 29 | | 1310.9445 | | 0.7837E-03 |
| 6 | 6 | 4 | 3 | 7 | 3 | 4 | | 1306.4388 | 0.0026 | 0.1044E-01 | 6 | 11 | 2 | 9 | 10 | 1 | 10 | | 1311.0995 | 0.0002 | 0.8368E-01 |
| 6 | 6 | 4 | 2 | 7 | 3 | 5 | | 1306.4434 | -0.0026 | 0.1044E-01 | 6 | 28 | 4 | 24 | 28 | 3 | 25 | | 1311.1383 | | 0.4519E-02 |
| 6 | 28 | 3 | 24 | 28 | 2 | 25 | | 1306.6305 | | 0.2724E-02 | 4 | 11 | 5 | 7 | 11 | 2 | 9 | | 1311.2502 | | 0.1503E-03 |
| 6 | 15 | 2 | 14 | 14 | 1 | 13 | | 1306.9445 | 0.0008 | 0.7498E-01 | 6 | 18 | 2 | 17 | 17 | 1 | 16 | | 1311.3448 | 0.0007 | 0.5080E-01 |
| 6 | 28 | 1 | 27 | 28 | 0 | 28 | | 1306.9482 | | 0.1199E-02 | 6 | 4 | 4 | 1 | 5 | 3 | 2 | | 1311.4010 | 0.0001 | 0.2940E-02 |
| 4 | 20 | 4 | 16 | 19 | 1 | 18 | | 1307.0367 | | 0.9871E-02 | 6 | 4 | 4 | 0 | 5 | 3 | 3 | | 1311.4018 | -0.0006 | 0.2940E-02 |
| 6 | 24 | 6 | 18 | 25 | 5 | 21 | | 1307.0710 | | 0.8478E-03 | 6 | 28 | 4 | 23 | 27 | 1 | 26 | | 1311.4510 | | 0.7820E-04 |
| 6 | 25 | 0 | 25 | 24 | 1 | 24 | | 1307.0760 | -0.0011 | 0.3305E-01 | 4 | 10 | 5 | 6 | 10 | 2 | 8 | | 1311.7297 | | 0.1001E-03 |
| 6 | 25 | 1 | 25 | 24 | 0 | 24 | | 1307.0912 | | 0.1056E-01 | 4 | 23 | 4 | 19 | 22 | 1 | 21 | | 1311.7520 | | 0.1030E-01 |
| 6 | 24 | 6 | 19 | 25 | 5 | 20 | | 1307.1617 | | 0.8680E-03 | 8 | 27 | 1 | 27 | 26 | 0 | 26 | | 1311.9672 | | 0.6898E-02 |
| 4 | 16 | 5 | 12 | 16 | 2 | 14 | | 1307.2660 | | 0.5398E-03 | 4 | 26 | 4 | 22 | 26 | 1 | 26 | | 1311.9738 | | 0.2743E-02 |
| 6 | 15 | 5 | 11 | 16 | 4 | 12 | | 1307.3414 | | 0.2915E-02 | 6 | 8 | 3 | 6 | 9 | 0 | 9 | | 1311.9845 | | 0.7333E-04 |
| 6 | 15 | 5 | 10 | 16 | 4 | 13 | | 1307.3621 | | 0.2916E-02 | 6 | 27 | 0 | 27 | 26 | 1 | 26 | | 1311.9924 | -0.0026 | 0.2074E-01 |
| 6 | 10 | 2 | 8 | 9 | 1 | 9 | | 1307.4250 | 0.0003 | 0.7138E-01 | 4 | 9 | 5 | 5 | 9 | 2 | 7 | | 1312.1172 | | 0.6147E-04 |
| 4 | 23 | 3 | 20 | 22 | 0 | 22 | | 1307.4408 | | 0.4937E-02 | 4 | 24 | 3 | 21 | 23 | 0 | 23 | | 1312.4895 | | 0.1746E-02 |
| 6 | 27 | 3 | 25 | 27 | 2 | 26 | | 1307.5712 | | 0.2018E-02 | 6 | 5 | 3 | 3 | 4 | 2 | 2 | | 1312.6386 | 0.0000 | 0.3860E-01 |
| 6 | 28 | 2 | 27 | 28 | 1 | 28 | | 1307.6353 | | 0.2737E-02 | 6 | 27 | 4 | 23 | 27 | 3 | 24 | | 1312.5551 | | 0.6057E-02 |
| 6 | 3 | 3 | 1 | 2 | 2 | 0 | | 1307.7539 | 0.0010 | 0.3677E-01 | 6 | 5 | 3 | 2 | 4 | 2 | 3 | | 1312.5718 | 0.0000 | 0.3860E-01 |
| 6 | 3 | 3 | 0 | 2 | 2 | 1 | | 1307.7563 | -0.0014 | 0.3677E-01 | 6 | 13 | 5 | 9 | 14 | 4 | 10 | | 1312.5743 | | 0.3432E-02 |
| 6 | 10 | 3 | 8 | 11 | 0 | 11 | | 1307.9193 | | 0.1521E-03 | 6 | 13 | 5 | 8 | 14 | 4 | 11 | | 1312.5815 | | 0.3432E-02 |
| 6 | 30 | 4 | 26 | 30 | 3 | 27 | | 1308.1298 | | 0.2423E-02 | 6 | 22 | 6 | 16 | 23 | 5 | 19 | | 1312.6854 | | 0.1410E-02 |
| 4 | 15 | 5 | 11 | 15 | 2 | 13 | | 1308.2788 | | 0.4498E-03 | 6 | 22 | 6 | 17 | 23 | 5 | 18 | | 1312.7517 | | 0.1439E-02 |
| 6 | 18 | 2 | 15 | 15 | 1 | 14 | | 1308.4072 | 0.0008 | 0.8703E-01 | 6 | 30 | 2 | 29 | 30 | 1 | 30 | | 1312.7642 | | 0.1629E-02 |
| 4 | 21 | 4 | 17 | 20 | 1 | 19 | | 1308.5452 | | 0.1025E-01 | 6 | 30 | 1 | 29 | 30 | 0 | 30 | | 1312.8157 | | 0.6228E-03 |
| 6 | 28 | 3 | 28 | 28 | 2 | 27 | | 1308.8008 | | 0.1477E-02 | 6 | 19 | 2 | 18 | 18 | 1 | 17 | | 1312.8552 | 0.0006 | 0.4297E-01 |
| 6 | 5 | 4 | 2 | 6 | 3 | 3 | | 1308.9261 | 0.0006 | 0.6732E-02 | 4 | 10 | 5 | 6 | 10 | 2 | 9 | | 1312.8671 | | 0.9957E-04 |
| 6 | 5 | 4 | 1 | 6 | 3 | 4 | | 1308.9280 | -0.0012 | 0.6732E-02 | 4 | 11 | 5 | 6 | 11 | 2 | 10 | | 1312.8717 | | 0.1489E-03 |
| 4 | 25 | 4 | 21 | 25 | 1 | 25 | | 1309.0232 | | 0.4259E-02 | 4 | 9 | 5 | 4 | 9 | 2 | 8 | | 1312.8832 | | 0.6132E-04 |
| 4 | 14 | 5 | 10 | 14 | 2 | 12 | | 1309.1857 | | 0.3637E-03 | 4 | 12 | 5 | 7 | 12 | 2 | 11 | | 1312.9034 | | 0.2083E-03 |
| 6 | 26 | 0 | 26 | 25 | 1 | 25 | | 1309.5275 | -0.0016 | 0.2638E-01 | 6 | 27 | 1 | 26 | 26 | 2 | 25 | | 1312.9182 | | 0.3336E-02 |
| 6 | 26 | 1 | 26 | 25 | 0 | 25 | | 1309.5387 | | 0.8663E-02 | 4 | 13 | 5 | 8 | 13 | 2 | 12 | | 1312.9692 | | 0.2756E-03 |
| 4 | 13 | 4 | 10 | 12 | 1 | 12 | | 1309.5988 | | 0.9436E-03 | 4 | 14 | 5 | 9 | 14 | 2 | 13 | | 1313.0764 | | 0.3473E-03 |
| 6 | 26 | 1 | 25 | 25 | 2 | 24 | | 1309.6300 | | 0.4093E-02 | 4 | 14 | 4 | 11 | 13 | 1 | 13 | | 1313.1174 | | 0.8723E-03 |
| 6 | 29 | 4 | 25 | 29 | 3 | 26 | | 1309.6571 | | 0.3330E-02 | 4 | 15 | 5 | 10 | 15 | 2 | 14 | | 1313.2328 | | 0.4192E-03 |
| 6 | 29 | 3 | 27 | 29 | 2 | 28 | | 1309.7238 | | 0.1068E-02 | 6 | 25 | 4 | 22 | 26 | 1 | 25 | | 1313.3077 | | 0.9836E-04 |
| 6 | 27 | 4 | 24 | 28 | 1 | 27 | | 1309.7977 | | 0.6139E-04 | 4 | 18 | 5 | 11 | 18 | 2 | 15 | | 1313.4467 | | 0.4882E-03 |
| 6 | 17 | 2 | 18 | 18 | 1 | 15 | | 1309.8685 | 0.0007 | 0.5890E-01 | 6 | 24 | 2 | 23 | 23 | 1 | 22 | | 1313.4670 | | 0.9950E-02 |
| 6 | 29 | 1 | 28 | 29 | 0 | 29 | | 1309.8895 | | 0.8694E-03 | 4 | 17 | 5 | 12 | 17 | 2 | 16 | | 1313.7268 | | 0.5435E-03 |
| 6 | 23 | 6 | 17 | 24 | 5 | 20 | | 1309.8906 | | 0.1103E-02 | 6 | 26 | 4 | 22 | 26 | 3 | 23 | | 1313.8914 | -0.0008 | 0.8018E-02 |
| 6 | 9 | 3 | 7 | 10 | 0 | 10 | | 1309.8951 | | 0.1104E-03 | 4 | 18 | 5 | 13 | 18 | 2 | 17 | | 1314.0819 | | 0.5867E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 28 | 1 | 28 | 27 | 0 | 27 | | 1314.4105 | | 0.5379E-02 | 6 | 10 | 5 | 6 | 11 | 4 | 7 | 1320.2869 | | 0.3454E-02 | |
| 6 | 20 | 2 | 19 | 19 | 1 | 18 | | 1314.4207 | 0.0001 | 0.3557E-01 | 6 | 10 | 5 | 5 | 11 | 4 | 8 | 1320.2878 | | 0.3454E-02 | |
| 6 | 28 | 0 | 28 | 27 | 1 | 27 | | 1314.4791 | -0.0027 | 0.1608E-01 | 6 | 19 | 4 | 15 | 19 | 3 | 16 | 1320.4009 | 0.0003 | 0.3913E-01 | |
| 4 | 19 | 5 | 14 | 19 | 2 | 18 | | 1314.5209 | | 0.6125E-03 | 4 | 16 | 4 | 13 | 16 | 1 | 15 | 1320.5189 | | 0.6303E-03 | |
| 6 | 6 | 3 | 4 | 5 | 2 | 3 | | 1314.8949 | -0.0002 | 0.3929E-01 | 4 | 26 | 5 | 21 | 26 | 2 | 25 | 1320.6471 | | 0.3420E-03 | |
| 6 | 6 | 3 | 3 | 5 | 2 | 4 | | 1314.9792 | 0.0012 | 0.3929E-01 | 6 | 19 | 6 | 13 | 20 | 5 | 16 | 1320.9305 | | 0.2653E-02 | |
| 6 | 12 | 2 | 10 | 11 | 1 | 11 | | 1314.9811 | -0.0007 | 0.6542E-01 | 6 | 18 | 4 | 14 | 18 | 3 | 15 | 1320.9368 | 0.0002 | 0.4628E-01 | |
| 4 | 20 | 5 | 15 | 20 | 2 | 19 | | 1315.0529 | | 0.6188E-03 | 6 | 19 | 6 | 14 | 20 | 5 | 15 | 1320.9688 | | 0.2700E-02 | |
| 6 | 25 | 4 | 21 | 25 | 3 | 22 | | 1315.1351 | -0.0006 | 0.1048E-01 | 6 | 26 | 4 | 23 | 26 | 3 | 24 | 1321.1304 | | 0.8142E-02 | |
| 4 | 27 | 4 | 23 | 27 | 1 | 27 | | 1315.1489 | | 0.1705E-02 | 6 | 27 | 4 | 24 | 27 | 3 | 25 | 1321.1489 | | 0.6137E-02 | |
| 8 | 12 | 5 | 8 | 13 | 4 | 9 | | 1315.1619 | | 0.3569E-02 | 6 | 25 | 4 | 22 | 25 | 3 | 23 | 1321.1527 | -0.0012 | 0.1065E-01 | |
| 6 | 12 | 5 | 7 | 13 | 4 | 10 | | 1315.1659 | | 0.3569E-02 | 6 | 28 | 2 | 27 | 27 | 1 | 26 | 1321.1542 | | 0.6490E-02 | |
| 6 | 25 | 2 | 24 | 24 | 1 | 23 | | 1315.2637 | | 0.9347E-02 | 6 | 24 | 4 | 21 | 24 | 3 | 22 | 1321.2104 | 0.0005 | 0.1374E-01 | |
| 6 | 24 | 4 | 21 | 25 | 1 | 24 | | 1315.3632 | | 0.1148E-03 | 6 | 28 | 4 | 25 | 28 | 3 | 26 | 1321.2133 | | 0.4560E-02 | |
| 6 | 21 | 6 | 15 | 22 | 5 | 18 | | 1315.4564 | | 0.1773E-02 | 6 | 23 | 4 | 20 | 23 | 3 | 21 | 1321.2981 | 0.0003 | 0.1746E-01 | |
| 6 | 21 | 6 | 18 | 22 | 5 | 17 | | 1315.5120 | | 0.1807E-02 | 6 | 29 | 4 | 26 | 29 | 3 | 27 | 1321.3290 | | 0.3342E-02 | |
| 4 | 21 | 5 | 18 | 21 | 2 | 20 | | 1315.6882 | | 0.6055E-03 | 6 | 17 | 4 | 13 | 17 | 3 | 14 | 1321.3940 | 0.0003 | 0.5387E-01 | |
| 6 | 21 | 2 | 20 | 20 | 1 | 19 | | 1316.0647 | 0.0006 | 0.2877E-01 | 6 | 22 | 4 | 19 | 22 | 3 | 20 | 1321.4106 | 0.0001 | 0.2188E-01 | |
| 6 | 28 | 1 | 27 | 27 | 2 | 26 | | 1316.1447 | | 0.2673E-02 | 6 | 30 | 4 | 27 | 30 | 3 | 28 | 1321.5007 | | 0.2415E-02 | |
| 6 | 24 | 4 | 20 | 24 | 3 | 21 | | 1316.2771 | -0.0003 | 0.1352E-01 | 6 | 21 | 4 | 18 | 21 | 3 | 19 | 1321.5427 | 0.0003 | 0.2702E-01 | |
| 4 | 22 | 5 | 17 | 22 | 2 | 21 | | 1316.4294 | | 0.5742E-03 | 6 | 20 | 4 | 17 | 20 | 3 | 18 | 1321.6895 | 0.0003 | 0.3288E-01 | |
| 4 | 15 | 4 | 12 | 14 | 1 | 14 | | 1316.7555 | | 0.7606E-03 | 3 | 20 | 3 | 18 | 21 | 5 | 17 | 1321.8906 | | 0.5243E-04 | |
| 6 | 29 | 1 | 29 | 28 | 0 | 28 | | 1316.8868 | | 0.4121E-02 | 4 | 24 | 4 | 20 | 23 | 1 | 22 | 1321.7354 | | 0.1291E-01 | |
| 6 | 29 | 0 | 29 | 28 | 1 | 28 | | 1316.9963 | | 0.1227E-01 | 6 | 9 | 3 | 7 | 8 | 2 | 6 | 1321.7357 | | 0.3807E-01 | |
| 6 | 26 | 2 | 25 | 25 | 1 | 24 | | 1317.1440 | | 0.6530E-02 | 6 | 18 | 4 | 12 | 16 | 3 | 13 | 1321.7823 | 0.0002 | 0.6169E-01 | |
| 6 | 7 | 3 | 5 | 6 | 2 | 4 | | 1317.2218 | -0.0001 | 0.3947E-01 | 6 | 19 | 4 | 18 | 19 | 3 | 17 | 1321.8461 | 0.0002 | 0.3942E-01 | |
| 4 | 23 | 5 | 18 | 23 | 2 | 22 | | 1317.2903 | | 0.5279E-03 | 6 | 18 | 4 | 15 | 18 | 3 | 16 | 1322.0085 | 0.0004 | 0.4654E-01 | |
| 6 | 23 | 4 | 19 | 23 | 3 | 20 | | 1317.3123 | -0.0001 | 0.1720E-01 | 4 | 27 | 5 | 22 | 27 | 2 | 26 | 1322.0432 | | 0.2790E-03 | |
| 6 | 7 | 3 | 4 | 6 | 2 | 5 | | 1317.3907 | -0.0002 | 0.3947E-01 | 6 | 15 | 4 | 11 | 15 | 3 | 12 | 1322.1102 | 0.0004 | 0.6946E-01 | |
| 6 | 23 | 4 | 20 | 24 | 1 | 23 | | 1317.6097 | | 0.1322E-03 | 6 | 17 | 4 | 14 | 17 | 3 | 15 | 1322.1727 | 0.0002 | 0.5410E-01 | |
| 6 | 11 | 5 | 7 | 12 | 4 | 8 | | 1317.7323 | | 0.3585E-02 | 6 | 9 | 3 | 6 | 8 | 2 | 7 | 1322.2430 | 0.0001 | 0.3805E-01 | |
| 6 | 11 | 5 | 6 | 12 | 4 | 9 | | 1317.7345 | | 0.3585E-02 | 4 | 29 | 4 | 25 | 29 | 1 | 29 | 1322.2440 | | 0.5953E-03 | |
| 6 | 22 | 2 | 21 | 21 | 1 | 20 | | 1317.8131 | -0.0005 | 0.2267E-01 | 6 | 18 | 4 | 13 | 16 | 3 | 14 | 1322.3353 | 0.0003 | 0.6189E-01 | |
| 4 | 25 | 3 | 22 | 24 | 0 | 24 | | 1318.1613 | | 0.6715E-03 | 6 | 14 | 4 | 10 | 14 | 3 | 11 | 1322.3861 | 0.0001 | 0.7685E-01 | |
| 6 | 26 | 6 | 14 | 21 | 5 | 17 | | 1318.2045 | | 0.2190E-02 | 6 | 30 | 1 | 29 | 29 | 2 | 28 | 1322.4192 | | 0.1633E-02 | |
| 6 | 22 | 4 | 18 | 22 | 3 | 19 | | 1318.2393 | 0.0001 | 0.2159E-01 | 6 | 15 | 4 | 12 | 15 | 3 | 13 | 1322.4932 | 0.0001 | 0.6962E-01 | |
| 6 | 26 | 6 | 15 | 21 | 5 | 16 | | 1318.2506 | | 0.2230E-02 | 6 | 13 | 4 | 9 | 13 | 3 | 10 | 1322.6176 | 0.0003 | 0.8345E-01 | |
| 4 | 24 | 5 | 19 | 24 | 2 | 23 | | 1318.2760 | | 0.4707E-03 | 6 | 21 | 4 | 18 | 22 | 1 | 21 | 1322.6335 | | 0.1580E-03 | |
| 4 | 28 | 4 | 24 | 28 | 1 | 28 | | 1318.5666 | | 0.1024E-02 | 6 | 14 | 4 | 11 | 14 | 3 | 12 | 1322.6440 | 0.0001 | 0.7696E-01 | |
| 6 | 21 | 4 | 17 | 21 | 3 | 18 | | 1319.0596 | 0.0001 | 0.2872E-01 | 6 | 13 | 4 | 10 | 13 | 3 | 11 | 1322.7860 | 0.0000 | 0.8353E-01 | |
| 6 | 13 | 2 | 11 | 12 | 1 | 12 | | 1319.0837 | 0.0003 | 0.4711E-01 | 6 | 12 | 4 | 8 | 12 | 3 | 9 | 1322.8116 | -0.0001 | 0.8883E-01 | |
| 6 | 27 | 2 | 26 | 26 | 1 | 25 | | 1319.1078 | | 0.7553E-02 | 6 | 9 | 5 | 5 | 10 | 4 | 6 | 1322.8267 | | 0.3157E-02 | |
| 6 | 29 | 1 | 28 | 28 | 2 | 27 | | 1319.3104 | | 0.2107E-02 | 6 | 9 | 5 | 4 | 10 | 4 | 7 | 1322.8271 | | 0.3157E-02 | |
| 4 | 25 | 5 | 20 | 25 | 2 | 24 | | 1319.3931 | | 0.4072E-03 | 6 | 12 | 4 | 9 | 12 | 3 | 10 | 1322.9176 | 0.0001 | 0.8889E-01 | |
| 6 | 30 | 1 | 30 | 29 | 0 | 29 | | 1319.4093 | | 0.3105E-02 | 6 | 11 | 4 | 7 | 11 | 3 | 8 | 1322.9738 | 0.0003 | 0.9252E-01 | |
| 6 | 8 | 3 | 8 | 7 | 2 | 5 | | 1319.5059 | -0.0001 | 0.3907E-01 | 6 | 11 | 4 | 8 | 11 | 3 | 9 | 1323.0378 | 0.0001 | 0.9256E-01 | |
| 6 | 30 | 0 | 30 | 29 | 1 | 29 | | 1319.5530 | | 0.9228E-02 | 6 | 10 | 4 | 6 | 10 | 3 | 7 | 1323.1093 | 0.0002 | 0.9405E-01 | |
| 6 | 23 | 2 | 22 | 22 | 1 | 21 | | 1319.6937 | -0.0010 | 0.1737E-01 | 6 | 10 | 4 | 7 | 10 | 3 | 8 | 1323.1461 | -0.0002 | 0.9408E-01 | |
| 6 | 20 | 4 | 18 | 20 | 3 | 17 | | 1319.7780 | 0.0003 | 0.3258E-01 | 6 | 27 | 7 | 21 | 28 | 6 | 22 | 1323.1636 | | 0.5644E-04 | |
| 6 | 8 | 3 | 5 | 7 | 2 | 6 | | 1319.8104 | -0.0001 | 0.3906E-01 | 6 | 27 | 7 | 20 | 28 | 6 | 23 | 1323.1663 | | 0.5644E-04 | |
| 6 | 22 | 4 | 19 | 23 | 1 | 22 | | 1320.0377 | | 0.1470E-03 | 6 | 9 | 4 | 5 | 9 | 3 | 6 | 1323.2224 | 0.0000 | 0.9295E-01 | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|------------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 6 | 9 | 4 | 6 | - | 9 | 3 | 7 | 1323.2423 | -0.0001 | 0.9296E-01 | 6 | 6 | 5 | 1 | - | 7 | 4 | 4 | 1330.3663 | 0.1320E-02 | |
| 6 | 29 | 2 | 28 | - | 28 | 1 | 27 | 1323.2811 | 0.5415E-02 | | 6 | 6 | 5 | 2 | - | 7 | 4 | 3 | 1330.3663 | 0.1320E-02 | |
| 6 | 8 | 4 | 4 | - | 8 | 3 | 5 | 1323.3185 | 0.0000 | 0.8874E-01 | 3 | 16 | 3 | 14 | - | 17 | 5 | 13 | 1330.4839 | 0.1524E-03 | |
| 6 | 8 | 4 | 5 | - | 8 | 3 | 6 | 1323.3284 | 0.0000 | 0.8874E-01 | 4 | 27 | 3 | 24 | - | 26 | 0 | 26 | 1330.7107 | 0.1273E-03 | |
| 6 | 7 | 4 | 3 | - | 7 | 3 | 4 | 1323.3944 | 0.0009 | 0.8097E-01 | 3 | 18 | 3 | 13 | - | 17 | 5 | 12 | 1331.1444 | 0.8078E-04 | |
| 6 | 7 | 4 | 4 | - | 7 | 3 | 5 | 1323.3990 | -0.0038 | 0.8098E-01 | 6 | 18 | 4 | 15 | - | 19 | 1 | 18 | 1331.2631 | 0.1693E-03 | |
| 6 | 14 | 2 | 12 | - | 13 | 1 | 13 | 1323.4188 | 0.0007 | 0.3915E-01 | 6 | 15 | 6 | 9 | - | 16 | 5 | 12 | 1331.6260 | 0.4544E-02 | |
| 6 | 8 | 4 | 2 | - | 8 | 3 | 3 | 1323.4586 | 0.0007 | 0.6917E-01 | 6 | 14 | 3 | 12 | - | 13 | 2 | 11 | 1331.6385 | 0.0000 | 0.2825E-01 |
| 6 | 6 | 4 | 3 | - | 6 | 3 | 4 | 1323.4604 | -0.0011 | 0.6917E-01 | 6 | 15 | 6 | 10 | - | 16 | 5 | 11 | 1331.6478 | 0.4680E-02 | |
| 6 | 5 | 4 | 1 | - | 5 | 3 | 2 | 1323.5107 | -0.0001 | 0.5269E-01 | 6 | 24 | 7 | 18 | - | 25 | 6 | 19 | 1331.6525 | 0.1372E-03 | |
| 6 | 5 | 4 | 2 | - | 5 | 3 | 3 | 1323.5114 | -0.0007 | 0.5269E-01 | 6 | 24 | 7 | 17 | - | 25 | 6 | 20 | 1331.6533 | 0.1372E-03 | |
| 6 | 4 | 4 | 0 | - | 4 | 3 | 1 | 1323.5522 | -0.0004 | 0.3044E-01 | 4 | 28 | 4 | 24 | - | 27 | 1 | 26 | 1332.0857 | 0.2810E-02 | |
| 6 | 4 | 4 | 1 | - | 4 | 3 | 2 | 1323.5525 | -0.0006 | 0.3044E-01 | 6 | 13 | 3 | 10 | - | 12 | 2 | 11 | 1332.2349 | 0.0002 | 0.2896E-01 |
| 4 | 28 | 5 | 23 | - | 28 | 2 | 27 | 1323.5854 | 0.2212E-03 | | 4 | 19 | 4 | 16 | - | 18 | 1 | 18 | 1332.6147 | 0.2850E-03 | |
| 6 | 18 | 6 | 12 | - | 19 | 5 | 15 | 1323.6353 | 0.3151E-02 | | 3 | 15 | 3 | 13 | - | 16 | 5 | 12 | 1332.6895 | 0.2376E-03 | |
| 6 | 18 | 6 | 13 | - | 19 | 5 | 14 | 1323.6687 | 0.3207E-02 | | 6 | 18 | 2 | 14 | - | 15 | 1 | 15 | 1332.8195 | 0.0006 | 0.2544E-01 |
| 3 | 19 | 3 | 17 | - | 20 | 5 | 18 | 1323.8889 | 0.6529E-04 | | 6 | 5 | 5 | 1 | - | 6 | 4 | 2 | 1332.8553 | 0.5690E-03 | |
| 6 | 10 | 3 | 8 | - | 9 | 2 | 7 | 1323.8988 | 0.0000 | 0.3649E-01 | 6 | 5 | 5 | 8 | - | 6 | 4 | 3 | 1332.8553 | 0.5690E-03 | |
| 4 | 25 | 4 | 21 | - | 24 | 1 | 23 | 1323.9675 | 0.9284E-02 | | 3 | 15 | 3 | 12 | - | 16 | 5 | 11 | 1333.1498 | 0.1009E-03 | |
| 4 | 26 | 3 | 23 | - | 25 | 0 | 25 | 1324.2614 | 0.2838E-03 | | 6 | 4 | 4 | 0 | - | 3 | 3 | 1 | 1333.2719 | -0.0004 | 0.1308E+00 |
| 4 | 17 | 4 | 14 | - | 18 | 1 | 18 | 1324.4133 | 0.5003E-03 | | 6 | 4 | 4 | 1 | - | 3 | 3 | 0 | 1333.2719 | -0.0003 | 0.1308E+00 |
| 6 | 10 | 3 | 7 | - | 9 | 2 | 8 | 1324.6946 | -0.0001 | 0.3645E-01 | 6 | 15 | 3 | 13 | - | 14 | 2 | 12 | 1333.2960 | -0.0002 | 0.2326E-01 |
| 4 | 29 | 5 | 24 | - | 29 | 2 | 28 | 1325.2781 | 0.1706E-03 | | 6 | 8 | 3 | 3 | - | 6 | 8 | 6 | 1333.3092 | 0.8205E-04 | |
| 6 | 8 | 5 | 4 | - | 9 | 4 | 5 | 1325.3525 | 0.2688E-02 | | 6 | 7 | 3 | 4 | - | 7 | 8 | 7 | 1333.4109 | 0.1217E-03 | |
| 6 | 8 | 5 | 3 | - | 9 | 4 | 6 | 1325.3528 | 0.2688E-02 | | 6 | 8 | 3 | 5 | - | 8 | 8 | 8 | 1333.5789 | 0.2098E-03 | |
| 6 | 20 | 4 | 17 | - | 21 | 1 | 28 | 1325.3817 | 0.1640E-03 | | 6 | 9 | 3 | 6 | - | 9 | 8 | 9 | 1333.8258 | 0.3267E-03 | |
| 6 | 30 | 2 | 29 | - | 29 | 1 | 28 | 1325.4865 | 0.4393E-02 | | 6 | 10 | 3 | 7 | - | 10 | 8 | 10 | 1334.1789 | 0.4670E-03 | |
| 6 | 11 | 3 | 9 | - | 10 | 2 | 8 | 1325.9821 | -0.0001 | 0.3442E-01 | 4 | 9 | 5 | 4 | - | 8 | 2 | 8 | 1334.2061 | 0.8104E-04 | |
| 6 | 26 | 7 | 20 | - | 27 | 6 | 21 | 1326.0108 | 0.7709E-04 | | 6 | 14 | 8 | 8 | - | 15 | 5 | 11 | 1334.2449 | 0.4724E-02 | |
| 6 | 26 | 7 | 19 | - | 27 | 6 | 22 | 1326.0125 | 0.7709E-04 | | 6 | 14 | 8 | 9 | - | 15 | 5 | 10 | 1334.2892 | 0.4983E-02 | |
| 3 | 18 | 3 | 18 | - | 19 | 5 | 15 | 1326.0837 | 0.8292E-04 | | 6 | 17 | 4 | 14 | - | 18 | 1 | 17 | 1334.3577 | 0.1490E-03 | |
| 4 | 30 | 4 | 26 | - | 30 | 1 | 30 | 1326.1960 | 0.3356E-03 | | 4 | 30 | 8 | 25 | - | 30 | 3 | 27 | 1334.3982 | 0.9029E-04 | |
| 6 | 17 | 6 | 11 | - | 18 | 5 | 14 | 1326.3195 | 0.3659E-02 | | 6 | 23 | 7 | 17 | - | 24 | 8 | 18 | 1334.4478 | 0.1788E-03 | |
| 6 | 17 | 6 | 12 | - | 18 | 5 | 13 | 1326.3459 | 0.3729E-02 | | 6 | 23 | 7 | 18 | - | 24 | 8 | 19 | 1334.4480 | 0.1788E-03 | |
| 4 | 28 | 4 | 22 | - | 25 | 1 | 24 | 1326.4189 | 0.6452E-02 | | 6 | 11 | 3 | 8 | - | 11 | 8 | 11 | 1334.4800 | 0.6195E-03 | |
| 4 | 30 | 5 | 25 | - | 30 | 2 | 29 | 1327.1243 | 0.1281E-03 | | 4 | 9 | 5 | 6 | - | 8 | 2 | 7 | 1334.6973 | 0.6123E-04 | |
| 6 | 11 | 3 | 8 | - | 10 | 2 | 9 | 1327.1718 | 0.0001 | 0.3434E-01 | 6 | 18 | 3 | 14 | - | 15 | 2 | 13 | 1334.8300 | -0.0002 | 0.2031E-01 |
| 6 | 7 | 5 | 2 | - | 8 | 4 | 5 | 1327.8856 | 0.2060E-02 | | 6 | 14 | 3 | 11 | - | 13 | 2 | 12 | 1334.8376 | 0.0002 | 0.2590E-01 |
| 6 | 7 | 5 | 3 | - | 8 | 4 | 4 | 1327.8856 | 0.2060E-02 | | 3 | 14 | 3 | 12 | - | 15 | 5 | 11 | 1334.9312 | 0.4578E-03 | |
| 6 | 12 | 3 | 10 | - | 11 | 2 | 9 | 1327.9735 | 0.0001 | 0.3195E-01 | 3 | 14 | 3 | 11 | - | 15 | 5 | 10 | 1335.2252 | 0.1981E-03 | |
| 6 | 15 | 2 | 13 | - | 14 | 1 | 14 | 1327.9952 | 0.0005 | 0.3187E-01 | 6 | 12 | 3 | 9 | - | 12 | 8 | 12 | 1335.2644 | 0.7688E-03 | |
| 6 | 19 | 4 | 16 | - | 20 | 1 | 19 | 1328.2646 | 0.1845E-03 | | 4 | 29 | 4 | 25 | - | 28 | 1 | 27 | 1335.3470 | 0.1765E-02 | |
| 3 | 17 | 3 | 15 | - | 18 | 5 | 14 | 1328.2806 | 0.1091E-03 | | 6 | 5 | 4 | 2 | - | 4 | 3 | 1 | 1335.6621 | -0.0003 | 0.1300E+00 |
| 4 | 18 | 4 | 15 | - | 17 | 1 | 17 | 1328.4438 | 0.3831E-03 | | 6 | 5 | 4 | 1 | - | 4 | 3 | 2 | 1335.6624 | -0.0005 | 0.1300E+00 |
| 6 | 25 | 7 | 19 | - | 26 | 6 | 20 | 1328.8402 | 0.1037E-03 | | 6 | 13 | 3 | 10 | - | 13 | 8 | 13 | 1336.0381 | 0.8975E-03 | |
| 6 | 25 | 7 | 18 | - | 26 | 6 | 21 | 1328.8414 | 0.1037E-03 | | 6 | 17 | 3 | 15 | - | 16 | 2 | 14 | 1336.2388 | -0.0001 | 0.1748E-01 |
| 6 | 16 | 6 | 10 | - | 17 | 5 | 13 | 1328.9832 | 0.4143E-02 | | 4 | 10 | 5 | 5 | - | 9 | 2 | 7 | 1336.3247 | 0.9557E-04 | |
| 6 | 16 | 6 | 11 | - | 17 | 5 | 12 | 1329.0062 | 0.4235E-02 | | 4 | 29 | 6 | 24 | - | 29 | 3 | 26 | 1336.3431 | 0.1038E-03 | |
| 4 | 27 | 4 | 23 | - | 26 | 1 | 25 | 1329.1168 | 0.4331E-02 | | 6 | 13 | 6 | 8 | - | 14 | 5 | 10 | 1336.8235 | 0.4117E-02 | |
| 6 | 12 | 3 | 9 | - | 11 | 2 | 10 | 1329.6819 | 0.0000 | 0.3181E-01 | 6 | 13 | 6 | 8 | - | 14 | 5 | 9 | 1336.8830 | 0.4879E-02 | |
| 6 | 13 | 3 | 11 | - | 12 | 2 | 10 | 1329.8821 | 0.0001 | 0.2919E-01 | 4 | 20 | 4 | 17 | - | 19 | 1 | 19 | 1336.9301 | 0.2074E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 14 | 3 | 11 | 14 | 0 | 14 | | 1336.9879 | | 0.9900E-03 | 6 | 23 | 3 | 21 | 22 | 2 | 20 | 1342.2563 | -0.0010 | 0.5434E-02 | |
| 4 | 10 | 5 | 6 | 9 | 2 | 8 | | 1337.0909 | | 0.9807E-04 | 6 | 26 | 5 | 21 | 28 | 4 | 22 | 1342.2927 | | 0.2082E-02 | |
| 3 | 13 | 3 | 11 | 14 | 5 | 10 | | 1337.2010 | | 0.1331E-02 | 6 | 28 | 5 | 24 | 28 | 4 | 25 | 1342.4169 | | 0.1172E-02 | |
| 6 | 22 | 7 | 16 | 23 | 6 | 17 | | 1337.2258 | | 0.2286E-03 | 6 | 20 | 7 | 14 | 21 | 6 | 15 | 1342.7310 | | 0.3550E-03 | |
| 6 | 22 | 7 | 15 | 23 | 6 | 18 | | 1337.2260 | | 0.2287E-03 | 6 | 20 | 7 | 13 | 21 | 6 | 16 | 1342.7311 | 0.0016 | 0.3550E-03 | |
| 3 | 13 | 3 | 10 | 14 | 5 | 9 | | 1337.3891 | | 0.5695E-03 | 6 | 8 | 4 | 5 | 7 | 3 | 4 | 1342.7736 | -0.0030 | 0.1248E+00 | |
| 4 | 28 | 3 | 26 | 27 | 0 | 27 | | 1337.4711 | | 0.5894E-04 | 6 | 8 | 4 | 4 | 7 | 3 | 5 | 1342.7781 | | 0.1248E+00 | |
| 6 | 15 | 3 | 12 | 14 | 2 | 13 | | 1337.5037 | 0.0001 | 0.2275E-01 | 6 | 27 | 5 | 23 | 27 | 4 | 24 | 1342.8079 | | 0.1567E-02 | |
| 6 | 18 | 3 | 18 | 17 | 2 | 15 | | 1337.5234 | -0.0004 | 0.1486E-01 | 6 | 18 | 3 | 15 | 18 | 0 | 18 | 1342.8142 | | 0.8888E-03 | |
| 6 | 18 | 4 | 13 | 17 | 1 | 18 | | 1337.5284 | | 0.1345E-03 | 6 | 25 | 5 | 20 | 25 | 4 | 21 | 1342.8779 | | 0.2691E-02 | |
| 6 | 17 | 2 | 15 | 18 | 1 | 18 | | 1337.8947 | 0.0007 | 0.1996E-01 | 6 | 24 | 3 | 22 | 23 | 2 | 21 | 1342.9238 | -0.0008 | 0.4293E-02 | |
| 6 | 6 | 4 | 3 | 5 | 3 | 2 | | 1338.0432 | 0.0002 | 0.1292E+00 | 4 | 25 | 6 | 20 | 25 | 3 | 22 | 1343.0659 | | 0.1600E-03 | |
| 8 | 8 | 4 | 2 | 5 | 3 | 3 | | 1338.0438 | -0.0004 | 0.1292E+00 | 6 | 17 | 3 | 14 | 16 | 2 | 15 | 1343.0895 | 0.0000 | 0.1858E-01 | |
| 6 | 15 | 3 | 12 | 15 | 0 | 15 | | 1338.1284 | | 0.1036E-02 | 6 | 26 | 5 | 22 | 26 | 4 | 23 | 1343.1978 | | 0.2060E-02 | |
| 4 | 28 | 6 | 23 | 28 | 3 | 25 | | 1338.1968 | | 0.1180E-03 | 6 | 18 | 2 | 18 | 17 | 1 | 17 | 1343.2218 | 0.0008 | 0.1541E-01 | |
| 4 | 11 | 5 | 8 | 18 | 2 | 8 | | 1338.3632 | | 0.1390E-03 | 6 | 24 | 5 | 19 | 24 | 4 | 20 | 1343.4015 | | 0.3483E-02 | |
| 6 | 19 | 3 | 17 | 18 | 2 | 16 | | 1338.6869 | -0.0004 | 0.1244E-01 | 6 | 25 | 3 | 23 | 24 | 2 | 22 | 1343.5249 | | 0.3357E-02 | |
| 4 | 30 | 4 | 28 | 29 | 1 | 28 | | 1338.9183 | | 0.1074E-02 | 6 | 25 | 5 | 21 | 25 | 4 | 22 | 1343.6121 | | 0.2592E-02 | |
| 6 | 38 | 5 | 25 | 38 | 4 | 28 | | 1339.1747 | | 0.8179E-03 | 6 | 24 | 5 | 20 | 24 | 4 | 21 | 1343.7400 | | 0.3081E-02 | |
| 3 | 12 | 3 | 10 | 13 | 5 | 9 | | 1339.2819 | | 0.1434E-02 | 6 | 23 | 5 | 18 | 23 | 4 | 19 | 1343.8705 | | 0.4395E-02 | |
| 3 | 12 | 3 | 9 | 13 | 5 | 8 | | 1339.3705 | | 0.2573E-02 | 4 | 14 | 5 | 9 | 13 | 2 | 11 | 1343.9028 | | 0.3081E-03 | |
| 6 | 18 | 3 | 13 | 16 | 0 | 16 | | 1339.4727 | | 0.1031E-02 | 3 | 10 | 3 | 8 | 11 | 5 | 7 | 1343.9034 | | 0.8058E-04 | |
| 4 | 11 | 5 | 7 | 10 | 2 | 9 | | 1339.5009 | | 0.1402E-03 | 3 | 10 | 3 | 7 | 11 | 5 | 6 | 1343.9481 | | 0.8787E-04 | |
| 6 | 12 | 6 | 6 | 13 | 5 | 9 | | 1339.5905 | | 0.4097E-02 | 6 | 14 | 4 | 11 | 15 | 1 | 14 | 1344.0226 | | 0.9784E-04 | |
| 6 | 12 | 6 | 7 | 13 | 5 | 8 | | 1339.6323 | | 0.2958E-02 | 6 | 28 | 3 | 24 | 25 | 2 | 23 | 1344.0743 | | 0.2598E-02 | |
| 6 | 20 | 3 | 18 | 19 | 2 | 17 | | 1339.7343 | -0.0006 | 0.1030E-01 | 6 | 23 | 5 | 19 | 23 | 4 | 20 | 1344.1808 | -0.0001 | 0.4363E-02 | |
| 4 | 27 | 6 | 22 | 27 | 3 | 24 | | 1339.9423 | | 0.1325E-03 | 6 | 22 | 5 | 17 | 22 | 4 | 18 | 1344.2913 | 0.0004 | 0.5496E-02 | |
| 6 | 21 | 7 | 15 | 22 | 8 | 18 | | 1339.9866 | | 0.2876E-03 | 4 | 13 | 5 | 9 | 12 | 2 | 11 | 1344.3948 | | 0.2525E-03 | |
| 6 | 21 | 7 | 14 | 22 | 6 | 17 | | 1339.9868 | | 0.2876E-03 | 4 | 24 | 6 | 19 | 24 | 3 | 21 | 1344.4312 | | 0.1716E-03 | |
| 6 | 29 | 5 | 24 | 29 | 4 | 25 | | 1340.0879 | | 0.8526E-03 | 6 | 22 | 5 | 18 | 22 | 4 | 19 | 1344.5203 | 0.0000 | 0.5491E-02 | |
| 6 | 18 | 3 | 13 | 15 | 2 | 14 | | 1340.2435 | 0.0000 | 0.1961E-01 | 6 | 27 | 3 | 25 | 26 | 2 | 24 | 1344.5883 | | 0.1992E-02 | |
| 4 | 12 | 5 | 7 | 11 | 2 | 9 | | 1340.3110 | | 0.1903E-03 | 6 | 10 | 6 | 4 | 11 | 5 | 7 | 1344.6674 | | 0.4879E-02 | |
| 6 | 7 | 4 | 4 | 8 | 3 | 3 | | 1340.4141 | 0.0004 | 0.1276E+00 | 6 | 10 | 6 | 5 | 11 | 5 | 6 | 1344.6677 | | 0.4871E-02 | |
| 6 | 7 | 4 | 3 | 8 | 3 | 4 | | 1340.4180 | -0.0014 | 0.1276E+00 | 6 | 21 | 5 | 16 | 21 | 4 | 17 | 1344.6694 | | 0.6775E-02 | |
| 6 | 21 | 3 | 19 | 20 | 2 | 18 | | 1340.6724 | -0.0008 | 0.8420E-02 | 6 | 19 | 3 | 16 | 19 | 0 | 19 | 1344.8281 | | 0.7727E-03 | |
| 6 | 15 | 4 | 12 | 16 | 1 | 15 | | 1340.7563 | | 0.1170E-03 | 6 | 21 | 5 | 17 | 21 | 4 | 18 | 1344.8319 | 0.0001 | 0.6776E-02 | |
| 6 | 28 | 5 | 23 | 28 | 4 | 24 | | 1340.9063 | | 0.1160E-02 | 3 | 24 | 0 | 24 | 24 | 4 | 21 | 1344.9623 | | 0.3962E-03 | |
| 6 | 17 | 3 | 14 | 17 | 0 | 17 | | 1341.0315 | | 0.9791E-03 | 6 | 20 | 5 | 15 | 20 | 4 | 16 | 1345.0096 | 0.0002 | 0.8229E-03 | |
| 4 | 21 | 4 | 18 | 20 | 1 | 20 | | 1341.3928 | | 0.1485E-03 | 6 | 28 | 3 | 26 | 27 | 2 | 25 | 1345.0839 | | 0.1513E-02 | |
| 6 | 22 | 3 | 20 | 21 | 2 | 19 | | 1341.5098 | -0.0008 | 0.6803E-02 | 6 | 9 | 4 | 6 | 8 | 3 | 5 | 1345.1195 | -0.0001 | 0.1205E+00 | |
| 3 | 25 | 0 | 25 | 25 | 4 | 22 | | 1341.5629 | | 0.1140E-03 | 6 | 20 | 5 | 16 | 20 | 4 | 17 | 1345.1221 | | 0.8232E-02 | |
| 4 | 26 | 6 | 21 | 26 | 3 | 23 | | 1341.5680 | | 0.1467E-03 | 6 | 9 | 4 | 5 | 8 | 3 | 6 | 1345.1298 | | 0.1206E+00 | |
| 3 | 11 | 3 | 9 | 12 | 5 | 8 | | 1341.6042 | | 0.2780E-03 | 6 | 19 | 5 | 14 | 19 | 4 | 15 | 1345.3184 | 0.0003 | 0.9844E-02 | |
| 6 | 30 | 5 | 28 | 30 | 4 | 27 | | 1341.6307 | | 0.6283E-03 | 6 | 19 | 5 | 15 | 19 | 4 | 16 | 1345.3925 | 0.0004 | 0.9847E-02 | |
| 6 | 27 | 5 | 22 | 27 | 4 | 23 | | 1341.6382 | | 0.1557E-02 | 6 | 19 | 7 | 13 | 20 | 6 | 14 | 1345.4587 | | 0.4299E-03 | |
| 3 | 11 | 3 | 8 | 12 | 5 | 7 | | 1341.6794 | | 0.3639E-03 | 6 | 19 | 7 | 12 | 20 | 6 | 15 | 1345.4587 | | 0.4299E-03 | |
| 4 | 12 | 5 | 8 | 11 | 2 | 10 | | 1341.9332 | | 0.1928E-03 | 4 | 15 | 5 | 10 | 14 | 2 | 12 | 1345.5367 | | 0.3685E-03 | |
| 8 | 29 | 5 | 25 | 29 | 4 | 26 | | 1342.0237 | | 0.8638E-03 | 6 | 29 | 3 | 27 | 28 | 2 | 26 | 1345.5802 | | 0.1139E-02 | |
| 6 | 11 | 6 | 6 | 12 | 5 | 8 | | 1342.1165 | | 0.5103E-02 | 6 | 18 | 5 | 13 | 18 | 4 | 14 | 1345.5933 | 0.0004 | 0.1160E-01 | |
| 6 | 11 | 6 | 6 | 12 | 5 | 7 | | 1342.1198 | | 0.5017E-02 | 6 | 18 | 5 | 14 | 18 | 4 | 15 | 1345.6433 | 0.0003 | 0.1160E-01 | |
| 4 | 13 | 5 | 8 | 12 | 2 | 10 | | 1342.1595 | | 0.2476E-03 | 4 | 23 | 6 | 18 | 23 | 3 | 20 | 1345.6627 | | 0.1806E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 6 | 17 | 5 | 12 | | 17 | 4 | 13 | 1345.8433 | 0.0002 | 0.1344E-01 | 4 | 15 | 5 | 11 | | 14 | 2 | 13 | 1349.4355 | 0.3836E-03 | |
| 6 | 17 | 5 | 13 | | 17 | 4 | 14 | 1345.8764 | 0.0003 | 0.1345E-01 | 4 | 26 | 6 | 20 | | 26 | 3 | 24 | 1349.4454 | 0.1433E-03 | |
| 6 | 18 | 3 | 15 | | 17 | 2 | 16 | 1345.9940 | 0.0001 | 0.1374E-01 | 4 | 25 | 8 | 19 | | 25 | 3 | 23 | 1349.5591 | 0.1583E-03 | |
| 4 | 22 | 4 | 19 | | 21 | 1 | 21 | 1346.0062 | | 0.1053E-03 | 6 | 21 | 3 | 18 | | 21 | 0 | 21 | 1349.5673 | 0.5148E-03 | |
| 6 | 18 | 5 | 11 | | 18 | 4 | 12 | 1346.0691 | 0.0004 | 0.1633E-01 | 4 | 30 | 6 | 24 | | 30 | 3 | 28 | 1349.5708 | 0.7860E-04 | |
| 6 | 18 | 5 | 12 | | 18 | 4 | 13 | 1346.0892 | 0.0004 | 0.1633E-01 | 4 | 24 | 8 | 18 | | 24 | 3 | 22 | 1349.7138 | 0.1711E-03 | |
| 6 | 30 | 3 | 28 | | 29 | 2 | 27 | 1346.0970 | | 0.8496E-03 | 6 | 8 | 6 | 3 | | 9 | 5 | 4 | 1349.7479 | 0.3257E-02 | |
| 6 | 15 | 5 | 10 | | 15 | 4 | 11 | 1346.2731 | 0.0003 | 0.1718E-01 | 6 | 8 | 6 | 2 | | 9 | 5 | 5 | 1349.7479 | 0.3257E-02 | |
| 6 | 15 | 5 | 11 | | 15 | 4 | 12 | 1346.2852 | 0.0002 | 0.1718E-01 | 6 | 11 | 4 | 8 | | 10 | 3 | 7 | 1349.7818 | 0.0001 | 0.1082E+00 |
| 6 | 14 | 5 | 9 | | 14 | 4 | 10 | 1346.4572 | 0.0005 | 0.1890E-01 | 4 | 18 | 5 | 13 | | 17 | 2 | 15 | 1349.7998 | 0.5138E-03 | |
| 6 | 14 | 5 | 10 | | 14 | 4 | 11 | 1346.4644 | 0.0003 | 0.1890E-01 | 6 | 11 | 4 | 7 | | 10 | 3 | 8 | 1349.7998 | 0.0000 | 0.1082E+00 |
| 6 | 13 | 5 | 8 | | 13 | 4 | 9 | 1346.8230 | 0.0016 | 0.2038E-01 | 4 | 23 | 6 | 17 | | 23 | 3 | 21 | 1349.9008 | 0.1811E-03 | |
| 6 | 13 | 5 | 9 | | 13 | 4 | 10 | 1346.8270 | -0.0023 | 0.2038E-01 | 4 | 18 | 6 | 13 | | 18 | 3 | 15 | 1349.9780 | 0.1673E-03 | |
| 4 | 22 | 6 | 17 | | 22 | 3 | 19 | 1346.7625 | | 0.1864E-03 | 6 | 26 | 8 | 19 | | 27 | 7 | 20 | 1349.9828 | 0.8019E-04 | |
| 6 | 12 | 5 | 7 | | 12 | 4 | 8 | 1346.7720 | 0.0011 | 0.2151E-01 | 6 | 26 | 8 | 18 | | 27 | 7 | 21 | 1349.9829 | 0.8019E-04 | |
| 6 | 12 | 5 | 8 | | 12 | 4 | 9 | 1346.7740 | -0.0010 | 0.2151E-01 | 4 | 22 | 6 | 18 | | 22 | 3 | 20 | 1350.1133 | 0.1874E-03 | |
| 4 | 14 | 5 | 10 | | 13 | 2 | 12 | 1346.8928 | | 0.3170E-03 | 6 | 7 | 3 | 5 | | 6 | 0 | 6 | 1350.2800 | 0.8023E-04 | |
| 6 | 11 | 5 | 6 | | 11 | 4 | 7 | 1346.9055 | 0.0006 | 0.2216E-01 | 4 | 21 | 6 | 15 | | 21 | 3 | 19 | 1350.3441 | 0.1894E-03 | |
| 6 | 11 | 5 | 7 | | 11 | 4 | 8 | 1346.9065 | -0.0004 | 0.2216E-01 | 4 | 17 | 8 | 12 | | 17 | 3 | 14 | 1350.5294 | 0.1520E-03 | |
| 6 | 10 | 5 | 5 | | 10 | 4 | 6 | 1347.0244 | 0.0004 | 0.2218E-01 | 4 | 20 | 6 | 14 | | 20 | 3 | 18 | 1350.5868 | 0.1869E-03 | |
| 6 | 10 | 5 | 6 | | 10 | 4 | 7 | 1347.0249 | -0.0001 | 0.2218E-01 | 6 | 12 | 4 | 9 | | 13 | 1 | 12 | 1350.6028 | 0.8020E-04 | |
| 4 | 16 | 5 | 11 | | 15 | 2 | 13 | 1347.0618 | | 0.4253E-01 | 4 | 23 | 4 | 20 | | 22 | 1 | 22 | 1350.7695 | 0.7437E-04 | |
| 6 | 20 | 3 | 17 | | 20 | 0 | 20 | 1347.0782 | | 0.8439E-03 | 4 | 19 | 6 | 13 | | 19 | 3 | 17 | 1350.8357 | 0.1797E-03 | |
| 6 | 27 | 8 | 28 | | 28 | 7 | 21 | 1347.0880 | | 0.5796E-04 | 6 | 17 | 7 | 11 | | 18 | 6 | 12 | 1350.8651 | 0.5912E-03 | |
| 6 | 27 | 8 | 19 | | 28 | 7 | 22 | 1347.0880 | | 0.5796E-04 | 6 | 17 | 7 | 10 | | 18 | 6 | 13 | 1350.8651 | 0.5912E-03 | |
| 6 | 9 | 5 | 4 | | 9 | 4 | 5 | 1347.1298 | 0.0000 | 0.2143E-01 | 4 | 16 | 6 | 11 | | 16 | 3 | 13 | 1351.0037 | 0.1338E-03 | |
| 6 | 9 | 5 | 5 | | 9 | 4 | 6 | 1347.1300 | -0.0002 | 0.2143E-01 | 4 | 19 | 5 | 14 | | 18 | 2 | 16 | 1351.0268 | 0.5398E-03 | |
| 6 | 9 | 6 | 3 | | 10 | 5 | 8 | 1347.2130 | | 0.4219E-02 | 4 | 18 | 6 | 12 | | 18 | 3 | 16 | 1351.0656 | 0.1681E-03 | |
| 6 | 9 | 6 | 4 | | 10 | 5 | 5 | 1347.2130 | | 0.4218E-02 | 4 | 17 | 6 | 11 | | 17 | 3 | 15 | 1351.3322 | 0.1526E-03 | |
| 6 | 8 | 5 | 3 | | 8 | 4 | 4 | 1347.2225 | 0.0000 | 0.1977E-01 | 4 | 15 | 6 | 10 | | 16 | 3 | 12 | 1351.4087 | 0.1136E-03 | |
| 6 | 8 | 5 | 4 | | 8 | 4 | 5 | 1347.2227 | -0.0001 | 0.1977E-01 | 4 | 16 | 6 | 10 | | 16 | 3 | 14 | 1351.5717 | 0.1342E-03 | |
| 6 | 7 | 5 | 2 | | 7 | 4 | 3 | 1347.3031 | -0.0001 | 0.1705E-01 | 4 | 14 | 6 | 9 | | 14 | 3 | 11 | 1351.7539 | 0.9264E-04 | |
| 6 | 7 | 5 | 3 | | 7 | 4 | 4 | 1347.3032 | -0.0001 | 0.1705E-01 | 4 | 15 | 6 | 9 | | 15 | 3 | 13 | 1351.8008 | 0.1138E-03 | |
| 6 | 13 | 4 | 10 | | 14 | 1 | 13 | 1347.3101 | | 0.7852E-04 | 4 | 14 | 6 | 8 | | 14 | 3 | 12 | 1352.0172 | 0.9279E-04 | |
| 6 | 6 | 5 | 1 | | 6 | 4 | 2 | 1347.3724 | -0.0002 | 0.1306E-01 | 4 | 16 | 5 | 12 | | 15 | 2 | 14 | 1352.0317 | 0.4492E-03 | |
| 6 | 6 | 5 | 2 | | 6 | 4 | 3 | 1347.3724 | -0.0002 | 0.1306E-01 | 4 | 13 | 6 | 8 | | 13 | 3 | 10 | 1352.0477 | 0.7217E-04 | |
| 6 | 5 | 5 | 0 | | 5 | 4 | 1 | 1347.4308 | -0.0001 | 0.7540E-02 | 6 | 12 | 4 | 9 | | 11 | 3 | 8 | 1352.0519 | 0.0003 | 0.1004E+00 |
| 6 | 5 | 5 | 1 | | 5 | 4 | 2 | 1347.4308 | -0.0001 | 0.7540E-02 | 6 | 12 | 4 | 8 | | 11 | 3 | 9 | 1352.1182 | 0.0001 | 0.1005E+00 |
| 6 | 10 | 4 | 7 | | 9 | 3 | 6 | 1347.4500 | -0.0002 | 0.1150E+00 | 4 | 20 | 5 | 15 | | 19 | 2 | 17 | 1352.1722 | 0.5514E-03 | |
| 6 | 10 | 4 | 8 | | 9 | 3 | 7 | 1347.4705 | -0.0001 | 0.1150E+00 | 6 | 20 | 3 | 17 | | 19 | 2 | 18 | 1352.1884 | 0.8839E-02 | |
| 4 | 21 | 6 | 16 | | 21 | 3 | 18 | 1347.7357 | | 0.1883E-03 | 4 | 13 | 6 | 7 | | 13 | 3 | 11 | 1352.2190 | 0.7225E-04 | |
| 6 | 18 | 7 | 12 | | 19 | 6 | 13 | 1348.1700 | | 0.5098E-03 | 6 | 7 | 6 | 1 | | 8 | 5 | 4 | 1352.2708 | 0.2092E-02 | |
| 6 | 18 | 7 | 11 | | 19 | 6 | 14 | 1348.1700 | | 0.5098E-03 | 6 | 7 | 6 | 2 | | 8 | 5 | 3 | 1352.2708 | 0.2092E-02 | |
| 4 | 17 | 5 | 12 | | 16 | 2 | 14 | 1348.4808 | | 0.4747E-03 | 6 | 22 | 3 | 19 | | 22 | 0 | 22 | 1352.2939 | 0.3942E-03 | |
| 4 | 20 | 6 | 15 | | 20 | 3 | 17 | 1348.5895 | | 0.1857E-03 | 4 | 12 | 6 | 7 | | 12 | 3 | 9 | 1352.2972 | 0.5330E-04 | |
| 6 | 19 | 2 | 17 | | 18 | 1 | 18 | 1348.7983 | 0.0007 | 0.1173E-01 | 4 | 12 | 6 | 6 | | 12 | 3 | 10 | 1352.4049 | 0.5334E-04 | |
| 6 | 19 | 3 | 18 | | 18 | 2 | 17 | 1349.0298 | 0.0000 | 0.1116E-01 | 6 | 8 | 3 | 6 | | 7 | 0 | 7 | 1352.8057 | 0.1422E-03 | |
| 4 | 19 | 6 | 14 | | 19 | 3 | 18 | 1349.3329 | | 0.1787E-03 | 6 | 25 | 8 | 18 | | 26 | 7 | 19 | 1352.8618 | 0.1092E-03 | |
| 4 | 28 | 6 | 22 | | 28 | 3 | 28 | 1349.3741 | | 0.1106E-03 | 6 | 25 | 8 | 17 | | 26 | 7 | 20 | 1352.8618 | 0.1092E-03 | |
| 4 | 27 | 6 | 21 | | 27 | 3 | 25 | 1349.3809 | | 0.1271E-03 | 4 | 21 | 5 | 16 | | 20 | 2 | 18 | 1353.2488 | 0.5479E-03 | |
| 4 | 29 | 6 | 23 | | 29 | 3 | 27 | 1349.4343 | | 0.9414E-04 | 6 | 18 | 7 | 9 | | 17 | 6 | 12 | 1353.5441 | 0.6891E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|------------|------------|----|----|----|----|----|----|----|-----------|-----------|------------|------------|
| 6 | 18 | 7 | 10 | | 17 | 8 | 11 | 1353.5441 | | 0.6691E-03 | 6 | 23 | 3 | 20 | | 22 | 2 | 21 | 1362.4798 | | 0.3768E-02 |
| 4 | 22 | 5 | 17 | | 21 | 2 | 19 | 1354.2697 | | 0.5300E-03 | 4 | 22 | 5 | 18 | | 22 | 0 | 22 | 1362.7751 | | 0.5399E-04 |
| 6 | 13 | 4 | 10 | | 12 | 3 | 9 | 1354.3156 | 0.0001 | 0.9190E-01 | 6 | 17 | 4 | 14 | | 16 | 3 | 13 | 1362.9858 | 0.0005 | 0.5591E-01 |
| 6 | 13 | 4 | 9 | | 12 | 3 | 10 | 1354.4260 | 0.0003 | 0.9197E-01 | 4 | 20 | 5 | 16 | | 19 | 2 | 18 | 1363.1699 | | 0.6490E-03 |
| 6 | 20 | 2 | 18 | | 19 | 1 | 19 | 1354.6210 | 0.0009 | 0.8813E-02 | 6 | 17 | 4 | 13 | | 16 | 3 | 14 | 1363.5779 | 0.0002 | 0.5612E-01 |
| 4 | 17 | 5 | 13 | | 16 | 2 | 15 | 1354.6914 | | 0.5110E-03 | 6 | 12 | 3 | 10 | | 11 | 0 | 11 | 1363.7025 | | 0.6006E-03 |
| 6 | 6 | 6 | 1 | | 7 | 5 | 2 | 1354.7813 | | 0.8984E-03 | 6 | 12 | 7 | 5 | | 13 | 6 | 8 | 1364.1025 | | 0.7999E-03 |
| 6 | 6 | 6 | 0 | | 7 | 5 | 3 | 1354.7813 | | 0.8984E-03 | 6 | 12 | 7 | 6 | | 13 | 6 | 7 | 1364.1025 | | 0.7999E-03 |
| 4 | 23 | 5 | 18 | | 22 | 2 | 20 | 1355.2490 | | 0.4993E-03 | 6 | 21 | 8 | 14 | | 22 | 7 | 15 | 1364.2138 | | 0.3152E-03 |
| 6 | 23 | 3 | 20 | | 23 | 0 | 23 | 1355.2520 | | 0.2891E-03 | 6 | 21 | 8 | 13 | | 22 | 7 | 16 | 1364.2138 | | 0.3152E-03 |
| 6 | 9 | 3 | 7 | | 8 | 0 | 8 | 1355.3940 | | 0.2283E-03 | 6 | 7 | 5 | 3 | | 6 | 4 | 2 | 1364.3092 | -0.0001 | 0.4046E-01 |
| 6 | 21 | 3 | 18 | | 20 | 2 | 19 | 1355.4792 | 0.0001 | 0.6839E-02 | 6 | 7 | 5 | 2 | | 6 | 4 | 3 | 1364.3093 | -0.0001 | 0.4046E-01 |
| 4 | 24 | 4 | 21 | | 23 | 1 | 23 | 1355.6864 | | 0.6256E-04 | 6 | 30 | 8 | 24 | | 30 | 5 | 25 | 1364.8320 | | 0.1194E-02 |
| 6 | 24 | 8 | 17 | | 25 | 7 | 18 | 1355.7242 | | 0.1481E-03 | 6 | 18 | 4 | 15 | | 17 | 3 | 14 | 1365.0181 | 0.0004 | 0.4763E-01 |
| 6 | 24 | 8 | 16 | | 25 | 7 | 19 | 1355.7242 | | 0.1481E-03 | 6 | 26 | 3 | 23 | | 26 | 0 | 26 | 1365.3643 | | 0.8577E-04 |
| 4 | 24 | 5 | 19 | | 23 | 2 | 21 | 1356.2018 | | 0.4583E-03 | 6 | 30 | 6 | 25 | | 30 | 5 | 26 | 1365.4058 | | 0.1289E-02 |
| 6 | 15 | 7 | 8 | | 16 | 6 | 11 | 1356.2072 | | 0.7370E-03 | 6 | 29 | 6 | 23 | | 29 | 5 | 24 | 1365.4332 | | 0.1653E-02 |
| 6 | 15 | 7 | 9 | | 16 | 6 | 10 | 1356.2072 | | 0.7370E-03 | 4 | 23 | 5 | 19 | | 23 | 0 | 23 | 1365.5038 | | 0.5412E-04 |
| 6 | 14 | 4 | 11 | | 13 | 3 | 10 | 1356.5474 | 0.0003 | 0.8293E-01 | 6 | 18 | 4 | 14 | | 17 | 3 | 15 | 1365.8588 | 0.0002 | 0.4787E-01 |
| 6 | 14 | 4 | 10 | | 13 | 3 | 11 | 1356.7240 | 0.0001 | 0.8303E-01 | 6 | 29 | 6 | 24 | | 29 | 5 | 25 | 1365.8918 | | 0.1769E-02 |
| 4 | 25 | 5 | 20 | | 24 | 2 | 22 | 1357.1438 | | 0.4100E-03 | 6 | 28 | 6 | 22 | | 28 | 5 | 23 | 1365.9900 | | 0.2255E-02 |
| 4 | 18 | 5 | 14 | | 17 | 2 | 18 | 1357.4257 | | 0.5663E-03 | 6 | 24 | 3 | 21 | | 23 | 2 | 22 | 1366.1869 | | 0.2866E-02 |
| 6 | 10 | 3 | 8 | | 9 | 0 | 9 | 1358.0615 | | 0.3377E-03 | 4 | 21 | 5 | 17 | | 20 | 2 | 19 | 1366.2111 | | 0.8734E-03 |
| 4 | 26 | 5 | 21 | | 25 | 2 | 23 | 1358.0909 | | 0.3577E-03 | 6 | 28 | 6 | 23 | | 28 | 5 | 24 | 1366.3558 | | 0.2398E-02 |
| 6 | 24 | 3 | 21 | | 24 | 0 | 24 | 1358.4297 | | 0.2026E-03 | 6 | 27 | 6 | 21 | | 27 | 5 | 22 | 1366.5068 | | 0.3033E-02 |
| 6 | 23 | 8 | 18 | | 24 | 7 | 17 | 1358.5708 | | 0.1923E-03 | 6 | 8 | 5 | 3 | | 7 | 4 | 4 | 1366.8602 | 0.0001 | 0.3910E-01 |
| 6 | 23 | 8 | 15 | | 24 | 7 | 18 | 1358.5708 | | 0.1923E-03 | 6 | 8 | 5 | 4 | | 7 | 4 | 3 | 1366.8602 | 0.0001 | 0.3910E-01 |
| 6 | 15 | 4 | 12 | | 14 | 3 | 11 | 1358.7415 | 0.0002 | 0.7377E-01 | 6 | 11 | 7 | 4 | | 12 | 8 | 7 | 1366.7037 | | 0.7467E-03 |
| 6 | 14 | 7 | 8 | | 15 | 8 | 9 | 1358.8545 | | 0.7871E-03 | 6 | 11 | 7 | 5 | | 12 | 8 | 6 | 1366.7037 | | 0.7467E-03 |
| 6 | 14 | 7 | 7 | | 15 | 6 | 10 | 1358.8545 | | 0.7871E-03 | 6 | 13 | 3 | 11 | | 12 | 0 | 12 | 1366.7078 | | 0.7319E-03 |
| 6 | 22 | 3 | 19 | | 21 | 2 | 20 | 1358.9091 | -0.0001 | 0.5152E-02 | 6 | 27 | 6 | 22 | | 27 | 5 | 23 | 1366.7979 | | 0.3201E-02 |
| 6 | 15 | 4 | 11 | | 14 | 3 | 12 | 1359.0138 | 0.0004 | 0.7390E-01 | 6 | 19 | 4 | 16 | | 18 | 3 | 15 | 1366.9771 | 0.0004 | 0.3998E-01 |
| 4 | 27 | 5 | 22 | | 28 | 2 | 24 | 1359.0602 | | 0.3044E-03 | 6 | 22 | 2 | 20 | | 21 | 1 | 21 | 1366.9783 | | 0.4816E-02 |
| 6 | 5 | 5 | 0 | | 4 | 4 | 1 | 1359.5759 | -0.0003 | 0.4262E-01 | 6 | 26 | 8 | 20 | | 26 | 5 | 21 | 1366.9869 | | 0.4020E-02 |
| 6 | 5 | 5 | 1 | | 4 | 4 | 0 | 1359.5759 | -0.0003 | 0.4262E-01 | 6 | 20 | 8 | 12 | | 21 | 7 | 15 | 1367.0103 | | 0.3919E-03 |
| 4 | 28 | 5 | 23 | | 27 | 2 | 25 | 1360.0687 | | 0.2529E-03 | 6 | 20 | 8 | 13 | | 21 | 7 | 14 | 1367.0103 | | 0.3919E-03 |
| 4 | 19 | 5 | 15 | | 18 | 2 | 17 | 1360.2471 | | 0.6129E-03 | 6 | 26 | 6 | 21 | | 26 | 5 | 22 | 1367.2183 | | 0.4220E-02 |
| 4 | 21 | 5 | 17 | | 21 | 0 | 21 | 1360.2991 | | 0.5208E-04 | 6 | 25 | 8 | 19 | | 25 | 5 | 20 | 1367.4338 | -0.0008 | 0.5252E-02 |
| 6 | 21 | 2 | 19 | | 20 | 1 | 20 | 1360.6837 | 0.0009 | 0.6548E-02 | 6 | 25 | 8 | 20 | | 25 | 5 | 21 | 1367.6172 | -0.0003 | 0.5488E-02 |
| 6 | 11 | 3 | 9 | | 10 | 0 | 10 | 1360.8254 | | 0.4649E-03 | 6 | 24 | 6 | 18 | | 24 | 5 | 19 | 1367.8500 | -0.0011 | 0.6763E-02 |
| 6 | 16 | 4 | 13 | | 15 | 3 | 12 | 1360.8904 | 0.0004 | 0.6469E-01 | 6 | 24 | 6 | 19 | | 24 | 5 | 20 | 1367.9950 | -0.0005 | 0.7037E-02 |
| 4 | 29 | 5 | 24 | | 28 | 2 | 26 | 1361.1346 | | 0.2050E-03 | 6 | 19 | 4 | 15 | | 18 | 3 | 16 | 1368.1447 | 0.0003 | 0.4026E-01 |
| 6 | 16 | 4 | 12 | | 15 | 3 | 13 | 1361.2975 | 0.0002 | 0.6488E-01 | 6 | 23 | 6 | 17 | | 23 | 5 | 18 | 1368.2379 | -0.0011 | 0.8581E-02 |
| 6 | 22 | 8 | 14 | | 23 | 7 | 17 | 1361.4003 | | 0.2485E-03 | 6 | 23 | 6 | 18 | | 23 | 5 | 19 | 1368.3522 | -0.0004 | 0.8897E-02 |
| 6 | 22 | 8 | 15 | | 23 | 7 | 16 | 1361.4003 | | 0.2485E-03 | 4 | 24 | 5 | 20 | | 24 | 0 | 24 | 1368.5057 | | 0.5237E-04 |
| 6 | 13 | 7 | 6 | | 14 | 8 | 9 | 1361.4862 | | 0.8109E-03 | 6 | 22 | 6 | 16 | | 22 | 5 | 17 | 1368.5992 | -0.0011 | 0.1073E-01 |
| 6 | 13 | 7 | 7 | | 14 | 8 | 8 | 1361.4862 | | 0.8109E-03 | 6 | 22 | 6 | 17 | | 22 | 5 | 18 | 1368.6892 | -0.0006 | 0.1109E-01 |
| 6 | 25 | 3 | 22 | | 25 | 0 | 25 | 1361.8085 | 0.1352E-03 | 6 | 20 | 4 | 17 | | 19 | 3 | 16 | 1368.8517 | 0.0002 | 0.3308E-01 | |
| 6 | 6 | 5 | 1 | | 5 | 4 | 2 | 1361.9478 | 0.0000 | 0.4157E-01 | 6 | 21 | 6 | 15 | | 21 | 5 | 16 | 1368.9358 | -0.0010 | 0.1321E-01 |
| 6 | 6 | 5 | 2 | | 5 | 4 | 1 | 1361.9478 | 0.0000 | 0.4157E-01 | 6 | 9 | 5 | 4 | | 8 | 4 | 5 | 1368.9998 | -0.0001 | 0.3744E-01 |
| 4 | 30 | 5 | 25 | | 29 | 2 | 27 | 1362.2769 | | 0.1624E-03 | 6 | 9 | 5 | 5 | | 8 | 4 | 4 | 1368.9998 | 0.0000 | 0.3744E-01 |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | | | | | | | | | |
|---|---|----|----|----|----|----|----|-----------|------------|------------|---|----|----|----|-----------|---------|-------------|-----------|------------|------------|------------|------------|------------|--------|------------|--------|------------|-----------|--------|------------|
| 6 | 6 | 21 | 8 | 18 | 21 | 5 | 17 | 1369.0035 | 0.0006 | 0.1362E-01 | 6 | 7 | 6 | 2 | 7 | 5 | 3 | 1371.8988 | 0.0006 | 0.2586E-01 | | | | | | | | | | |
| 6 | 6 | 27 | 3 | 24 | 27 | 6 | 27 | 1369.0764 | -0.0011 | 0.5163E-04 | 6 | 8 | 8 | 1 | 6 | 5 | 2 | 1371.7783 | 0.0006 | 0.1497E-01 | | | | | | | | | | |
| 6 | 6 | 28 | 6 | 14 | 28 | 5 | 15 | 1369.2491 | -0.0011 | 0.1600E-01 | 6 | 8 | 6 | 9 | 16 | 3 | 14 | 16 | 5 | 11 | 1371.7783 | 0.0006 | 0.1497E-01 | | | | | | | |
| 6 | 6 | 19 | 7 | 3 | 11 | 6 | 8 | 1369.2898 | -0.0006 | 0.8471E-03 | 3 | 16 | 3 | 14 | 16 | 5 | 11 | 1371.7908 | 0.0006 | 0.1887E-02 | | | | | | | | | | |
| 6 | 6 | 20 | 8 | 15 | 20 | 5 | 16 | 1369.2898 | -0.0006 | 0.8471E-03 | 3 | 16 | 9 | 7 | 2 | 10 | 6 | 5 | 11 | 1371.8606 | 0.0006 | 0.5027E-03 | | | | | | | | |
| 4 | 4 | 22 | 5 | 18 | 21 | 2 | 20 | 1369.3903 | -0.0010 | 0.1847E-01 | 6 | 17 | 9 | 7 | 3 | 16 | 6 | 4 | 1371.8606 | 0.0006 | 0.1451E-02 | | | | | | | | | |
| 6 | 6 | 19 | 6 | 13 | 19 | 5 | 14 | 1369.5402 | -0.0010 | 0.1908E-01 | 3 | 15 | 3 | 12 | 15 | 5 | 11 | 1372.0240 | 0.0006 | 0.1420E-02 | | | | | | | | | | |
| 6 | 6 | 19 | 8 | 14 | 19 | 5 | 15 | 1369.5841 | -0.0004 | 0.1961E-01 | 3 | 18 | 3 | 16 | 18 | 5 | 13 | 1372.2589 | 0.0006 | 0.1170E-02 | | | | | | | | | | |
| 6 | 6 | 19 | 8 | 12 | 20 | 7 | 13 | 1369.7900 | 0.4770E-03 | 0.4770E-03 | 6 | 22 | 4 | 19 | 21 | 3 | 18 | 1372.3024 | 0.0003 | 0.2167E-01 | | | | | | | | | | |
| 6 | 6 | 19 | 8 | 11 | 20 | 7 | 14 | 1369.7900 | -0.0010 | 0.2236E-01 | 6 | 16 | 3 | 13 | 16 | 5 | 12 | 1372.4524 | 0.0006 | 0.9877E-03 | | | | | | | | | | |
| 6 | 6 | 18 | 6 | 12 | 18 | 6 | 13 | 1369.8103 | -0.0006 | 0.2229E-01 | 6 | 19 | 5 | 17 | 19 | 5 | 14 | 1372.4987 | 0.0006 | 0.9871E-03 | | | | | | | | | | |
| 6 | 6 | 18 | 6 | 13 | 18 | 5 | 14 | 1369.8453 | -0.0006 | 0.8455E-03 | 6 | 18 | 8 | 11 | 18 | 6 | 10 | 1372.5530 | 0.0006 | 0.5875E-03 | | | | | | | | | | |
| 6 | 6 | 14 | 3 | 12 | 13 | 6 | 13 | 1369.8545 | -0.0004 | 0.2984E-01 | 6 | 25 | 3 | 22 | 24 | 2 | 23 | 5 | 19 | 22 | 2 | 21 | 1372.7314 | 0.0006 | 0.6822E-03 | | | | | |
| 6 | 6 | 20 | 4 | 18 | 19 | 3 | 17 | 1370.4412 | -0.0003 | 0.3338E-01 | 6 | 17 | 6 | 12 | 1370.6861 | -0.0008 | 0.2847E-01 | 6 | 21 | 3 | 18 | 20 | 5 | 15 | 1372.7354 | 0.0006 | 0.8087E-03 | | | |
| 6 | 6 | 15 | 6 | 9 | 15 | 17 | 18 | 1370.4898 | -0.0007 | 0.3186E-01 | 6 | 15 | 6 | 12 | 1370.5220 | -0.0006 | 0.2894E-01 | 6 | 21 | 4 | 17 | 20 | 3 | 18 | 1372.7648 | 0.0006 | 0.2728E-01 | | | |
| 6 | 6 | 15 | 6 | 10 | 16 | 5 | 11 | 1370.2900 | -0.0009 | 0.2349E-03 | 6 | 18 | 6 | 13 | 1370.6187 | -0.0004 | 0.2984E-01 | 6 | 21 | 3 | 19 | 21 | 5 | 16 | 1372.9604 | 0.0006 | 0.7356E-03 | | | |
| 6 | 6 | 16 | 6 | 11 | 16 | 5 | 12 | 1370.3142 | -0.0004 | 0.2697E-01 | 6 | 20 | 4 | 18 | 1370.6305 | 0.0003 | 0.2697E-01 | 6 | 20 | 3 | 22 | 24 | 3 | 19 | 1372.9829 | 0.0006 | 0.6794E-03 | | | |
| 6 | 6 | 15 | 6 | 9 | 15 | 18 | 17 | 1370.6835 | -0.0007 | 0.2718E-03 | 6 | 15 | 6 | 9 | 1370.6868 | -0.0009 | 0.3293E-01 | 6 | 22 | 3 | 20 | 22 | 5 | 17 | 1373.1532 | 0.0006 | 0.9296E-03 | | | |
| 6 | 6 | 15 | 6 | 10 | 16 | 5 | 11 | 1370.5220 | -0.0006 | 0.3288E-01 | 6 | 15 | 6 | 12 | 1370.7104 | -0.0004 | 0.3514E-01 | 6 | 22 | 3 | 20 | 22 | 5 | 17 | 1373.1752 | 0.0006 | 0.5708E-03 | | | |
| 6 | 6 | 11 | 3 | 9 | 11 | 5 | 15 | 1370.6187 | -0.0004 | 0.1300E-02 | 6 | 11 | 5 | 12 | 1370.7502 | -0.0008 | 0.1719E-01 | 6 | 18 | 3 | 15 | 18 | 5 | 13 | 1373.3344 | 0.0006 | 0.1159E-03 | | | |
| 6 | 6 | 21 | 4 | 18 | 20 | 3 | 17 | 1370.6305 | 0.0003 | 0.1838E-02 | 6 | 21 | 4 | 18 | 1370.8322 | -0.0011 | 0.2832E-01 | 6 | 23 | 3 | 21 | 22 | 1 | 22 | 1373.4964 | 0.0006 | 0.4782E-03 | | | |
| 6 | 6 | 18 | 3 | 7 | 16 | 6 | 8 | 1370.8322 | -0.0011 | 0.2480E-01 | 6 | 12 | 6 | 7 | 1370.8322 | -0.0011 | 0.68912E-02 | 6 | 25 | 3 | 23 | 24 | 5 | 19 | 1373.5238 | 0.0006 | 0.3512E-02 | | | |
| 6 | 6 | 14 | 6 | 8 | 14 | 6 | 9 | 1370.8718 | -0.0008 | 0.3443E-01 | 6 | 11 | 5 | 12 | 1370.8718 | -0.0008 | 0.1719E-01 | 6 | 18 | 3 | 15 | 18 | 5 | 14 | 1373.5513 | 0.0006 | 0.1450E-03 | | | |
| 6 | 6 | 11 | 3 | 8 | 11 | 5 | 7 | 1370.8254 | -0.0010 | 0.1838E-02 | 6 | 11 | 5 | 6 | 1370.8254 | -0.0010 | 0.1719E-01 | 6 | 11 | 5 | 6 | 7 | 10 | 4 | 1373.5858 | 0.0006 | 0.5657E-03 | | | |
| 6 | 6 | 13 | 6 | 7 | 12 | 6 | 8 | 1370.8254 | -0.0010 | 0.2480E-01 | 6 | 12 | 6 | 7 | 1370.8254 | -0.0010 | 0.3288E-01 | 6 | 25 | 3 | 23 | 25 | 6 | 20 | 1373.6429 | 0.0006 | 0.3320E-01 | | | |
| 6 | 6 | 12 | 6 | 8 | 12 | 6 | 7 | 1371.1675 | 0.0010 | 0.2480E-01 | 6 | 12 | 6 | 7 | 1371.2094 | 0.0011 | 0.2480E-01 | 6 | 23 | 4 | 20 | 23 | 5 | 20 | 1373.6440 | 0.0006 | 0.3304E-03 | | | |
| 6 | 6 | 13 | 3 | 11 | 13 | 6 | 8 | 1371.2094 | 0.0011 | 0.1177E-01 | 6 | 19 | 3 | 16 | 1371.2094 | 0.0011 | 0.4102E-01 | 6 | 28 | 3 | 28 | 28 | 5 | 23 | 1373.6804 | 0.0006 | 0.2719E-03 | | | |
| 6 | 6 | 11 | 6 | 5 | 11 | 6 | 6 | 1371.2657 | -0.0022 | 0.4112E-01 | 6 | 8 | 7 | 2 | 9 | 6 | 3 | 1371.3276 | 0.0009 | 0.4048E-01 | 6 | 27 | 3 | 24 | 28 | 5 | 21 | 1373.7167 | 0.0006 | 0.2222E-03 |
| 6 | 6 | 11 | 6 | 6 | 9 | 5 | 7 | 1371.2657 | -0.0022 | 0.3547E-01 | 6 | 12 | 6 | 7 | 1371.2657 | -0.0022 | 0.3547E-01 | 6 | 23 | 4 | 20 | 23 | 5 | 22 | 1373.7321 | 0.0006 | 0.1716E-01 | | | |
| 6 | 6 | 14 | 3 | 12 | 14 | 6 | 6 | 1371.3276 | -0.0022 | 0.4830E-02 | 6 | 26 | 3 | 23 | 25 | 2 | 24 | 3 | 19 | 24 | 3 | 19 | 1373.8567 | 0.0001 | 0.1189E-02 | | | | | |
| 6 | 6 | 10 | 6 | 4 | 10 | 6 | 5 | 1371.3276 | -0.0022 | 0.5652E-02 | 6 | 17 | 8 | 10 | 18 | 7 | 11 | 9 | 6 | 3 | 1374.4167 | 0.0006 | 0.4416E-03 | | | | | | | |
| 6 | 6 | 10 | 6 | 5 | 10 | 6 | 3 | 1371.3276 | -0.0022 | 0.4109E-01 | 6 | 12 | 5 | 8 | 11 | 4 | 7 | 6 | 4 | 1374.4167 | 0.0006 | 0.3247E-03 | | | | | | | | |
| 6 | 6 | 9 | 6 | 3 | 9 | 6 | 4 | 1371.3276 | -0.0022 | 0.3547E-01 | 6 | 26 | 3 | 17 | 26 | 5 | 18 | 1375.0703 | 0.0006 | 0.3461E-03 | | | | | | | | | | |
| 6 | 6 | 9 | 6 | 4 | 9 | 6 | 5 | 1371.3276 | -0.0022 | 0.3547E-01 | 6 | 22 | 4 | 18 | 21 | 3 | 19 | 1375.0931 | 0.0006 | 0.2197E-01 | | | | | | | | | | |
| 6 | 6 | 15 | 3 | 13 | 15 | 6 | 5 | 1371.3719 | -0.0022 | 0.4830E-02 | 6 | 24 | 4 | 21 | 23 | 3 | 20 | 1375.2843 | -0.0001 | 0.1340E-01 | | | | | | | | | | |
| 6 | 6 | 10 | 6 | 4 | 10 | 6 | 5 | 1371.3719 | -0.0022 | 0.5652E-02 | 6 | 17 | 8 | 10 | 18 | 7 | 11 | 1375.2990 | 0.0006 | 0.4416E-03 | | | | | | | | | | |
| 6 | 6 | 10 | 6 | 5 | 10 | 6 | 3 | 1371.3719 | -0.0022 | 0.4109E-01 | 6 | 12 | 5 | 8 | 11 | 4 | 7 | 6 | 4 | 1375.2990 | 0.0006 | 0.3247E-03 | | | | | | | | |
| 6 | 6 | 9 | 6 | 3 | 9 | 6 | 4 | 1371.3719 | -0.0022 | 0.3547E-01 | 6 | 26 | 3 | 17 | 26 | 5 | 18 | 1375.9456 | 0.0006 | 0.3461E-03 | | | | | | | | | | |
| 6 | 6 | 15 | 3 | 13 | 15 | 6 | 5 | 1371.4983 | 0.0004 | 0.3851E-01 | 6 | 21 | 3 | 18 | 21 | 6 | 17 | 1376.0657 | -0.0003 | 0.2197E-01 | | | | | | | | | | |
| 6 | 6 | 15 | 3 | 13 | 15 | 6 | 5 | 1371.5721 | 0.0005 | 0.3851E-01 | 6 | 6 | 6 | 8 | 17 | 12 | 1376.2990 | 0.0006 | 0.2712E-03 | | | | | | | | | | | |
| 6 | 6 | 8 | 6 | 3 | 8 | 6 | 4 | 1371.6034 | 0.0005 | 0.3353E-01 | 6 | 22 | 4 | 18 | 22 | 1 | 21 | 1376.1841 | 0.0006 | 0.7794E-03 | | | | | | | | | | |
| 6 | 6 | 8 | 6 | 3 | 8 | 6 | 4 | 1371.6034 | 0.0005 | 0.3353E-01 | 6 | 24 | 4 | 20 | 24 | 1 | 23 | 1376.1923 | 0.0006 | 0.8279E-03 | | | | | | | | | | |
| 6 | 6 | 14 | 3 | 11 | 14 | 6 | 5 | 1371.6034 | 0.0005 | 0.2370E-02 | 6 | 24 | 5 | 20 | 23 | 2 | 22 | 1376.2829 | 0.0006 | 0.7098E-03 | | | | | | | | | | |
| 6 | 6 | 10 | 6 | 4 | 10 | 6 | 5 | 1371.6034 | 0.0005 | 0.2370E-02 | 6 | 21 | 3 | 18 | 21 | 6 | 17 | 1376.4471 | 0.0006 | 0.6639E-03 | | | | | | | | | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 6 | 25 | 4 | 21 | 25 | 1 | 24 | | 1376.5029 | | 0.6251E-03 | 4 | 13 | 6 | 7 | 12 | 3 | 9 | 1383.7484 | | 0.8599E-04 | |
| 6 | 25 | 4 | 22 | 24 | 3 | 21 | | 1376.5778 | -0.0001 | 0.1031E-01 | 6 | 11 | 4 | 7 | 11 | 1 | 10 | 1383.8011 | | 0.1894E-03 | |
| 6 | 16 | 3 | 14 | 16 | 0 | 15 | | 1376.6115 | | 0.9763E-03 | 4 | 13 | 6 | 8 | 12 | 3 | 10 | 1383.8560 | | 0.8609E-04 | |
| 6 | 28 | 4 | 16 | 28 | 1 | 19 | | 1376.8596 | | 0.8480E-03 | 6 | 18 | 3 | 18 | 17 | 0 | 17 | 1384.0221 | | 0.9514E-03 | |
| 6 | 7 | 7 | 1 | 8 | 6 | 2 | | 1376.9583 | | 0.1399E-03 | 4 | 28 | 5 | 22 | 25 | 2 | 24 | 1384.0311 | | 0.5748E-03 | |
| 6 | 7 | 7 | 0 | 8 | 6 | 3 | | 1376.9583 | | 0.1399E-03 | 3 | 27 | 3 | 24 | 27 | 5 | 23 | 1384.5197 | | 0.5701E-04 | |
| 6 | 28 | 4 | 22 | 28 | 1 | 25 | | 1377.0417 | | 0.5323E-03 | 6 | 10 | 4 | 6 | 10 | 1 | 9 | 1384.8029 | | 0.1140E-03 | |
| 3 | 22 | 3 | 19 | 22 | 5 | 18 | | 1377.0731 | | 0.2118E-03 | 6 | 28 | 4 | 22 | 25 | 3 | 23 | 1384.8888 | -0.0006 | 0.7956E-02 | |
| 6 | 19 | 4 | 15 | 19 | 1 | 18 | | 1377.3993 | | 0.8143E-03 | 6 | 18 | 5 | 12 | 15 | 4 | 11 | 1385.0002 | 0.0003 | 0.1973E-01 | |
| 6 | 23 | 4 | 19 | 22 | 3 | 20 | | 1377.4651 | -0.0001 | 0.1743E-01 | 6 | 16 | 5 | 11 | 15 | 4 | 12 | 1385.0129 | 0.0004 | 0.1974E-01 | |
| 6 | 26 | 4 | 23 | 25 | 3 | 22 | | 1377.7316 | -0.0002 | 0.7828E-02 | 6 | 9 | 4 | 5 | 9 | 1 | 8 | 1385.3613 | | 0.7176E-04 | |
| 6 | 27 | 4 | 23 | 27 | 1 | 28 | | 1377.8235 | | 0.4384E-03 | 4 | 14 | 6 | 8 | 13 | 3 | 10 | 1385.9205 | | 0.1088E-03 | |
| 6 | 27 | 3 | 24 | 28 | 2 | 25 | | 1377.9946 | | 0.7480E-03 | 4 | 14 | 6 | 9 | 13 | 3 | 11 | 1386.0919 | | 0.1090E-03 | |
| 6 | 16 | 8 | 8 | 17 | 7 | 11 | | 1378.0278 | | 0.7433E-03 | 6 | 13 | 8 | 6 | 14 | 7 | 7 | 1386.1106 | | 0.8642E-03 | |
| 6 | 16 | 8 | 9 | 17 | 7 | 10 | | 1378.0278 | | 0.7433E-03 | 6 | 13 | 8 | 5 | 14 | 7 | 8 | 1386.1106 | | 0.8642E-03 | |
| 6 | 18 | 4 | 14 | 18 | 1 | 17 | | 1378.0438 | | 0.7586E-03 | 6 | 29 | 3 | 26 | 28 | 2 | 27 | 1386.2667 | | 0.2812E-03 | |
| 6 | 13 | 5 | 9 | 12 | 4 | 8 | | 1378.2332 | 0.0012 | 0.2803E-01 | 6 | 6 | 6 | 0 | 5 | 5 | 1 | 1386.3468 | 0.0005 | 0.1075E+00 | |
| 6 | 13 | 5 | 8 | 12 | 4 | 9 | | 1378.2354 | -0.0009 | 0.2803E-01 | 6 | 6 | 6 | 1 | 5 | 5 | 0 | 1386.3468 | 0.0005 | 0.1075E+00 | |
| 3 | 23 | 3 | 20 | 23 | 5 | 19 | | 1378.2792 | | 0.1847E-03 | 6 | 25 | 2 | 23 | 24 | 1 | 24 | 1387.1515 | | 0.1827E-02 | |
| 6 | 27 | 4 | 24 | 28 | 3 | 23 | | 1378.7438 | -0.0003 | 0.5884E-02 | 6 | 17 | 5 | 13 | 16 | 4 | 12 | 1387.2188 | 0.0004 | 0.1710E-01 | |
| 6 | 17 | 4 | 13 | 17 | 1 | 16 | | 1378.7712 | | 0.6839E-03 | 6 | 17 | 5 | 12 | 16 | 4 | 13 | 1387.2401 | 0.0005 | 0.1710E-01 | |
| 6 | 28 | 4 | 24 | 28 | 1 | 27 | | 1378.8618 | | 0.3493E-03 | 6 | 27 | 4 | 23 | 26 | 3 | 24 | 1387.5028 | -0.0010 | 0.5937E-02 | |
| 6 | 16 | 4 | 12 | 16 | 1 | 15 | | 1379.5805 | | 0.5982E-03 | 6 | 19 | 3 | 17 | 18 | 0 | 18 | 1387.9764 | | 0.8884E-03 | |
| 6 | 28 | 4 | 25 | 27 | 3 | 24 | | 1379.8143 | -0.0004 | 0.4336E-02 | 4 | 15 | 6 | 9 | 14 | 3 | 11 | 1388.0491 | | 0.1320E-03 | |
| 3 | 24 | 3 | 21 | 24 | 5 | 20 | | 1379.8279 | | 0.1273E-03 | 4 | 15 | 6 | 10 | 14 | 3 | 12 | 1388.3124 | | 0.1324E-03 | |
| 6 | 24 | 4 | 20 | 23 | 3 | 21 | | 1379.8804 | -0.0003 | 0.1363E-01 | 4 | 27 | 5 | 23 | 26 | 2 | 25 | 1388.3387 | | 0.5047E-03 | |
| 4 | 25 | 5 | 21 | 24 | 2 | 23 | | 1380.0175 | | 0.6284E-03 | 6 | 7 | 6 | 1 | 6 | 5 | 2 | 1388.6940 | 0.0003 | 0.1034E+00 | |
| 6 | 29 | 4 | 25 | 29 | 1 | 28 | | 1380.1672 | | 0.2692E-03 | 6 | 7 | 6 | 2 | 6 | 5 | 1 | 1388.6940 | 0.0003 | 0.1034E+00 | |
| 6 | 24 | 2 | 22 | 23 | 1 | 23 | | 1380.2239 | | 0.2541E-02 | 6 | 12 | 8 | 5 | 13 | 7 | 6 | 1388.7699 | | 0.8238E-03 | |
| 6 | 17 | 3 | 15 | 18 | 0 | 16 | | 1380.2336 | | 0.9828E-03 | 6 | 12 | 8 | 4 | 13 | 7 | 7 | 1388.7699 | | 0.8238E-03 | |
| 6 | 29 | 4 | 26 | 28 | 3 | 25 | | 1380.3461 | | 0.3167E-02 | 6 | 18 | 5 | 14 | 17 | 4 | 13 | 1389.4158 | 0.0004 | 0.1462E-01 | |
| 6 | 15 | 4 | 11 | 15 | 1 | 14 | | 1380.3923 | | 0.5021E-03 | 6 | 18 | 5 | 13 | 17 | 4 | 14 | 1389.4501 | 0.0004 | 0.1462E-01 | |
| 6 | 14 | 5 | 10 | 13 | 4 | 9 | | 1380.5059 | 0.0019 | 0.2527E-01 | 6 | 30 | 7 | 23 | 30 | 6 | 24 | 1389.8013 | | 0.2715E-03 | |
| 6 | 14 | 5 | 9 | 13 | 4 | 10 | | 1380.5099 | -0.0022 | 0.2527E-01 | 3 | 8 | 3 | 6 | 7 | 5 | 3 | 1389.8118 | | 0.7788E-04 | |
| 6 | 15 | 8 | 7 | 18 | 7 | 10 | | 1380.7394 | | 0.8130E-03 | 6 | 30 | 7 | 24 | 30 | 6 | 25 | 1389.8152 | | 0.2716E-03 | |
| 6 | 15 | 8 | 8 | 18 | 7 | 9 | | 1380.7394 | | 0.8130E-03 | 3 | 8 | 3 | 5 | 7 | 5 | 2 | 1389.8239 | | 0.7927E-04 | |
| 3 | 30 | 4 | 27 | 29 | 3 | 26 | | 1380.9446 | | 0.2285E-02 | 4 | 16 | 6 | 10 | 15 | 3 | 12 | 1390.1268 | | 0.1543E-03 | |
| 3 | 25 | 3 | 22 | 25 | 5 | 21 | | 1381.1200 | | 0.9791E-04 | 6 | 28 | 4 | 24 | 27 | 3 | 25 | 1390.2128 | -0.0015 | 0.4359E-02 | |
| 8 | 14 | 4 | 10 | 14 | 1 | 13 | | 1381.2486 | | 0.4076E-03 | 6 | 29 | 7 | 22 | 29 | 8 | 23 | 1390.2701 | | 0.3722E-03 | |
| 4 | 12 | 6 | 6 | 11 | 3 | 8 | | 1381.5392 | | 0.6481E-04 | 6 | 29 | 7 | 23 | 29 | 8 | 24 | 1390.2791 | | 0.3722E-03 | |
| 4 | 12 | 6 | 7 | 11 | 3 | 9 | | 1381.6040 | | 0.6486E-04 | 4 | 30 | 5 | 26 | 29 | 2 | 28 | 1390.4954 | | 0.1478E-03 | |
| 6 | 30 | 4 | 26 | 30 | 1 | 29 | | 1381.7498 | | 0.2007E-03 | 4 | 18 | 6 | 11 | 15 | 3 | 13 | 1390.5189 | | 0.1550E-03 | |
| 6 | 28 | 3 | 25 | 27 | 2 | 26 | | 1382.0994 | | 0.4493E-03 | 6 | 28 | 7 | 21 | 28 | 6 | 22 | 1390.7213 | | 0.5033E-03 | |
| 8 | 13 | 4 | 9 | 13 | 1 | 12 | | 1382.1111 | | 0.3182E-03 | 6 | 28 | 7 | 22 | 28 | 8 | 23 | 1390.7271 | | 0.5033E-03 | |
| 6 | 25 | 4 | 21 | 24 | 3 | 22 | | 1382.3502 | -0.0006 | 0.1049E-01 | 6 | 8 | 6 | 2 | 7 | 5 | 3 | 1391.0295 | 0.0005 | 0.9897E-01 | |
| 3 | 28 | 3 | 23 | 26 | 5 | 22 | | 1382.7526 | | 0.7490E-04 | 6 | 8 | 6 | 3 | 7 | 5 | 2 | 1391.0295 | 0.0005 | 0.9896E-01 | |
| 8 | 15 | 5 | 11 | 14 | 4 | 10 | | 1382.7620 | 0.0004 | 0.2248E-01 | 6 | 27 | 7 | 20 | 27 | 6 | 21 | 1391.1549 | | 0.6716E-03 | |
| 8 | 15 | 5 | 10 | 14 | 4 | 11 | | 1382.7694 | 0.0001 | 0.2248E-01 | 6 | 27 | 7 | 21 | 27 | 6 | 22 | 1391.1584 | | 0.6717E-03 | |
| 8 | 12 | 4 | 8 | 12 | 1 | 11 | | 1382.9667 | | 0.2379E-03 | 6 | 11 | 8 | 3 | 12 | 7 | 6 | 1391.4117 | | 0.7281E-03 | |
| 8 | 14 | 8 | 6 | 15 | 7 | 9 | | 1383.4337 | | 0.8570E-03 | 6 | 11 | 8 | 4 | 12 | 7 | 5 | 1391.4117 | | 0.7281E-03 | |
| 6 | 14 | 8 | 7 | 15 | 7 | 8 | | 1383.4337 | | 0.8570E-03 | 6 | 26 | 7 | 19 | 28 | 8 | 20 | 1391.5712 | | 0.8842E-03 | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 6 | 26 | 7 | 20 | | 26 | 6 | 21 | 1391.5734 | | 0.8842E-03 | 6 | 12 | 7 | 6 | | 12 | 6 | 7 | 1395.6556 | 0.0006 | 0.7957E-02 |
| 6 | 19 | 5 | 15 | | 18 | 4 | 14 | 1391.5883 | 0.0004 | 0.1233E-01 | 6 | 10 | 6 | 4 | | 9 | 5 | 5 | 1395.6680 | 0.0009 | 0.8784E-01 |
| 6 | 19 | 5 | 14 | | 18 | 4 | 15 | 1391.6426 | 0.0005 | 0.1234E-01 | 6 | 10 | 6 | 5 | | 9 | 5 | 4 | 1395.6685 | 0.0005 | 0.8774E-01 |
| 6 | 25 | 7 | 18 | | 25 | 6 | 19 | 1391.9782 | | 0.1148E-02 | 6 | 11 | 7 | 5 | | 11 | 6 | 6 | 1395.8291 | 0.0007 | 0.7862E-02 |
| 6 | 25 | 7 | 19 | | 25 | 6 | 20 | 1391.9716 | | 0.1148E-02 | 6 | 11 | 7 | 4 | | 11 | 6 | 5 | 1395.8291 | 0.0007 | 0.7862E-02 |
| 6 | 20 | 3 | 18 | | 19 | 0 | 19 | 1392.0945 | | 0.8027E-03 | 6 | 21 | 6 | 17 | | 20 | 4 | 16 | 1395.8481 | 0.0003 | 0.8426E-02 |
| 4 | 17 | 6 | 11 | | 16 | 3 | 13 | 1392.1451 | | 0.1744E-03 | 4 | 19 | 8 | 13 | | 18 | 3 | 15 | 1395.9666 | | 0.2036E-03 |
| 3 | 9 | 3 | 7 | | 8 | 5 | 4 | 1392.3508 | | 0.2548E-03 | 6 | 30 | 4 | 26 | | 29 | 3 | 27 | 1395.9733 | | 0.2232E-02 |
| 6 | 24 | 7 | 17 | | 24 | 6 | 18 | 1392.3522 | | 0.1470E-02 | 6 | 21 | 6 | 18 | | 20 | 4 | 17 | 1395.9742 | 0.0000 | 0.8440E-02 |
| 6 | 24 | 7 | 18 | | 24 | 6 | 19 | 1392.3530 | | 0.1470E-02 | 6 | 10 | 7 | 4 | | 10 | 6 | 5 | 1395.9875 | 0.0008 | 0.7405E-02 |
| 3 | 9 | 3 | 6 | | 8 | 5 | 3 | 1392.3752 | | 0.2865E-03 | 6 | 10 | 7 | 3 | | 10 | 6 | 4 | 1395.9875 | 0.0008 | 0.7405E-02 |
| 4 | 17 | 6 | 12 | | 16 | 3 | 14 | 1392.7133 | | 0.1758E-03 | 6 | 9 | 7 | 2 | | 9 | 6 | 3 | 1398.1310 | 0.0010 | 0.8499E-02 |
| 6 | 23 | 7 | 16 | | 23 | 6 | 17 | 1392.7172 | | 0.1858E-02 | 6 | 9 | 7 | 3 | | 9 | 6 | 4 | 1398.1310 | 0.0010 | 0.8499E-02 |
| 6 | 23 | 7 | 17 | | 23 | 6 | 18 | 1392.7177 | | 0.1858E-02 | 6 | 8 | 7 | 1 | | 8 | 6 | 2 | 1398.2598 | 0.0010 | 0.5049E-02 |
| 4 | 28 | 5 | 24 | | 27 | 2 | 26 | 1392.9701 | | 0.4233E-03 | 6 | 8 | 7 | 2 | | 8 | 6 | 3 | 1398.2598 | 0.0010 | 0.5049E-02 |
| 6 | 29 | 4 | 25 | | 28 | 3 | 28 | 1393.0313 | | 0.3147E-02 | 6 | 21 | 3 | 19 | | 20 | 0 | 20 | 1398.3732 | | 0.7037E-03 |
| 6 | 22 | 7 | 15 | | 22 | 6 | 16 | 1393.0653 | | 0.2310E-02 | 6 | 7 | 7 | 0 | | 7 | 6 | 1 | 1398.3740 | 0.0011 | 0.2936E-02 |
| 6 | 22 | 7 | 16 | | 22 | 6 | 17 | 1393.0658 | | 0.2310E-02 | 6 | 7 | 7 | 1 | | 7 | 6 | 2 | 1398.3740 | 0.0011 | 0.2936E-02 |
| 6 | 9 | 8 | 3 | | 8 | 5 | 4 | 1393.3538 | 0.0007 | 0.9391E-01 | 6 | 13 | 4 | 10 | | 13 | 1 | 13 | 1398.5741 | | 0.1541E-03 |
| 6 | 9 | 8 | 4 | | 8 | 5 | 3 | 1393.3538 | 0.0006 | 0.9389E-01 | 6 | 9 | 8 | 2 | | 10 | 7 | 3 | 1398.6422 | | 0.3780E-03 |
| 6 | 21 | 7 | 14 | | 21 | 8 | 15 | 1393.3969 | 0.0001 | 0.2832E-02 | 6 | 9 | 8 | 1 | | 10 | 7 | 4 | 1398.6422 | | 0.3780E-03 |
| 6 | 21 | 7 | 15 | | 21 | 8 | 16 | 1393.3970 | -0.0001 | 0.2832E-02 | 4 | 19 | 6 | 14 | | 18 | 3 | 16 | 1397.0767 | | 0.2065E-03 |
| 6 | 10 | 4 | 7 | | 10 | 1 | 10 | 1393.4178 | | 0.7312E-04 | 3 | 11 | 3 | 9 | | 10 | 5 | 6 | 1397.4658 | | 0.3305E-02 |
| 6 | 20 | 7 | 13 | | 20 | 8 | 14 | 1393.7118 | -0.0001 | 0.3420E-02 | 3 | 11 | 3 | 8 | | 10 | 5 | 5 | 1397.5409 | | 0.4485E-02 |
| 6 | 20 | 7 | 14 | | 20 | 8 | 15 | 1393.7119 | -0.0002 | 0.3420E-02 | 4 | 20 | 6 | 14 | | 19 | 3 | 16 | 1397.7491 | | 0.2111E-03 |
| 6 | 20 | 5 | 16 | | 19 | 4 | 15 | 1393.7336 | 0.0004 | 0.1026E-01 | 6 | 14 | 4 | 11 | | 14 | 1 | 14 | 1397.8645 | | 0.1776E-03 |
| 6 | 20 | 5 | 15 | | 19 | 4 | 16 | 1393.8174 | 0.0004 | 0.1027E-01 | 6 | 22 | 5 | 18 | | 21 | 4 | 17 | 1397.9258 | 0.0002 | 0.6820E-02 |
| 6 | 19 | 7 | 12 | | 19 | 8 | 13 | 1394.0104 | -0.0001 | 0.4064E-02 | 4 | 29 | 5 | 25 | | 28 | 2 | 27 | 1397.9434 | | 0.3384E-03 |
| 6 | 19 | 7 | 13 | | 19 | 8 | 14 | 1394.0105 | -0.0002 | 0.4064E-02 | 6 | 11 | 6 | 5 | | 10 | 5 | 6 | 1397.9778 | 0.0022 | 0.7934E-01 |
| 6 | 10 | 8 | 2 | | 11 | 7 | 5 | 1394.0358 | | 0.5759E-03 | 6 | 11 | 6 | 6 | | 10 | 5 | 5 | 1397.9812 | -0.0012 | 0.7816E-01 |
| 6 | 10 | 8 | 3 | | 11 | 7 | 4 | 1394.0358 | | 0.5759E-03 | 6 | 22 | 5 | 17 | | 21 | 4 | 18 | 1398.1138 | 0.0004 | 0.6843E-02 |
| 4 | 18 | 6 | 12 | | 17 | 3 | 14 | 1394.0952 | | 0.1912E-03 | 6 | 8 | 8 | 1 | | 9 | 7 | 2 | 1399.2307 | | 0.1850E-03 |
| 6 | 28 | 2 | 24 | | 25 | 1 | 25 | 1394.2842 | | 0.1305E-02 | 6 | 8 | 8 | 0 | | 9 | 7 | 3 | 1399.2307 | | 0.1650E-03 |
| 6 | 18 | 7 | 11 | | 18 | 6 | 12 | 1394.2928 | -0.0001 | 0.4751E-02 | 4 | 20 | 6 | 16 | | 19 | 3 | 17 | 1399.2528 | | 0.2152E-03 |
| 6 | 18 | 7 | 12 | | 18 | 6 | 13 | 1394.2928 | -0.0002 | 0.4751E-02 | 6 | 15 | 4 | 12 | | 15 | 1 | 15 | 1399.2833 | | 0.1959E-03 |
| 6 | 11 | 4 | 8 | | 11 | 1 | 11 | 1394.3563 | | 0.9957E-04 | 4 | 21 | 6 | 15 | | 20 | 3 | 17 | 1399.4319 | | 0.2133E-03 |
| 6 | 17 | 7 | 10 | | 17 | 6 | 11 | 1394.5592 | -0.0001 | 0.5459E-02 | 6 | 23 | 5 | 19 | | 22 | 4 | 18 | 1399.9551 | -0.0002 | 0.6422E-02 |
| 6 | 17 | 7 | 11 | | 17 | 6 | 12 | 1394.5592 | -0.0002 | 0.5459E-02 | 3 | 12 | 3 | 10 | | 11 | 5 | 7 | 1400.0049 | | 0.1804E-01 |
| 6 | 18 | 7 | 9 | | 18 | 6 | 10 | 1394.8098 | -0.0001 | 0.8157E-02 | 3 | 12 | 3 | 9 | | 11 | 5 | 6 | 1400.0936 | | 0.3345E-01 |
| 4 | 18 | 6 | 13 | | 17 | 3 | 15 | 1394.8982 | -0.0001 | 0.8157E-02 | 6 | 23 | 5 | 18 | | 22 | 4 | 19 | 1400.2362 | 0.0003 | 0.5474E-02 |
| 3 | 10 | 3 | 8 | | 9 | 5 | 5 | 1394.9041 | | 0.1931E-03 | 6 | 12 | 6 | 8 | | 11 | 5 | 7 | 1400.3135 | 0.0010 | 0.5812E-01 |
| 3 | 10 | 3 | 7 | | 9 | 5 | 4 | 1394.9489 | | 0.8421E-03 | 6 | 12 | 6 | 7 | | 11 | 5 | 6 | 1400.3553 | 0.0010 | 0.4270E-01 |
| 6 | 15 | 7 | 8 | | 15 | 6 | 9 | 1395.0444 | 0.0000 | 0.6808E-02 | 6 | 22 | 3 | 20 | | 21 | 0 | 21 | 1400.8085 | | 0.6002E-03 |
| 6 | 15 | 7 | 9 | | 15 | 6 | 10 | 1395.0444 | 0.0000 | 0.6808E-02 | 6 | 16 | 4 | 13 | | 18 | 1 | 16 | 1400.8357 | | 0.2076E-03 |
| 6 | 14 | 7 | 7 | | 14 | 6 | 8 | 1395.2635 | 0.0001 | 0.7363E-02 | 4 | 22 | 8 | 18 | | 21 | 3 | 18 | 1401.0051 | | 0.2103E-03 |
| 6 | 14 | 7 | 8 | | 14 | 6 | 9 | 1395.2635 | 0.0001 | 0.7363E-02 | 4 | 21 | 8 | 18 | | 20 | 3 | 18 | 1401.4310 | | 0.2188E-03 |
| 6 | 12 | 4 | 9 | | 12 | 1 | 12 | 1395.4066 | | 0.1273E-03 | 6 | 27 | 2 | 25 | | 26 | 1 | 26 | 1401.5468 | | 0.9278E-03 |
| 6 | 13 | 7 | 7 | | 13 | 6 | 8 | 1395.4673 | 0.0005 | 0.7787E-02 | 3 | 25 | 0 | 25 | | 24 | 4 | 20 | 1401.8566 | -0.0015 | 0.3859E-02 |
| 6 | 13 | 7 | 8 | | 13 | 6 | 7 | 1395.4673 | 0.0005 | 0.7787E-02 | 6 | 18 | 9 | 8 | | 17 | 8 | 9 | 1402.3239 | 0.1638E-03 | |
| 6 | 12 | 7 | 5 | | 12 | 6 | 6 | 1395.6556 | 0.0008 | 0.7957E-02 | 6 | 18 | 9 | 7 | | 17 | 8 | 10 | 1402.3239 | 0.5651E-04 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 6 | 24 | 5 | 19 | | 23 | 4 | 26 | 1402.3429 | 0.0000 | 0.4321E-02 | 6 | 13 | 9 | 5 | | 14 | 8 | 8 | 1410.8808 | 0.8586E-04 | |
| 8 | 13 | 6 | 7 | | 12 | 5 | 8 | 1402.4093 | -0.0012 | 0.5094E-01 | 3 | 16 | 3 | 14 | | 15 | 5 | 11 | 1410.8850 | 0.2093E-02 | |
| 6 | 13 | 6 | 8 | | 12 | 5 | 7 | 1402.4489 | -0.0008 | 0.6104E-01 | 8 | 21 | 4 | 18 | | 21 | 1 | 21 | 1410.7719 | 0.1855E-03 | |
| 4 | 23 | 6 | 17 | | 22 | 3 | 19 | 1402.4595 | | 0.2026E-03 | 6 | 29 | 5 | 25 | | 28 | 4 | 24 | 1411.1429 | 0.1066E-02 | |
| 6 | 17 | 4 | 14 | | 17 | 1 | 17 | 1402.5271 | | 0.2119E-03 | 6 | 11 | 4 | 8 | | 10 | 1 | 9 | 1411.2555 | 0.1517E-03 | |
| 3 | 13 | 3 | 11 | | 12 | 5 | 8 | 1402.7869 | | 0.1841E-01 | 3 | 18 | 3 | 13 | | 15 | 5 | 10 | 1411.3280 | 0.9312E-03 | |
| 3 | 13 | 3 | 10 | | 12 | 5 | 7 | 1402.9551 | | 0.8315E-02 | 3 | 20 | 1 | 20 | | 20 | 3 | 17 | 1411.3387 | 0.5240E-04 | |
| 3 | 24 | 0 | 24 | | 23 | 4 | 19 | 1403.0789 | | 0.4470E-03 | 6 | 17 | 6 | 11 | | 18 | 5 | 12 | 1411.3680 | -0.0007 | 0.4065E-01 |
| 6 | 30 | 3 | 27 | | 29 | 2 | 28 | 1403.2638 | | 0.2586E-03 | 6 | 17 | 6 | 12 | | 18 | 5 | 11 | 1411.3955 | -0.0004 | 0.4153E-01 |
| 4 | 22 | 6 | 17 | | 21 | 3 | 19 | 1403.6165 | | 0.2175E-03 | 4 | 28 | 6 | 21 | | 25 | 3 | 23 | 1412.5832 | 0.1728E-03 | |
| 4 | 24 | 8 | 18 | | 23 | 3 | 20 | 1403.7875 | | 0.1908E-03 | 6 | 29 | 5 | 24 | | 28 | 4 | 25 | 1412.7148 | 0.1083E-02 | |
| 6 | 25 | 5 | 21 | | 24 | 4 | 20 | 1404.0367 | | 0.3186E-02 | 6 | 30 | 5 | 26 | | 29 | 4 | 25 | 1412.7280 | 0.7735E-03 | |
| 6 | 18 | 4 | 15 | | 18 | 1 | 18 | 1404.3621 | | 0.2089E-03 | 6 | 12 | 4 | 9 | | 11 | 1 | 10 | 1412.8793 | 0.2154E-03 | |
| 6 | 25 | 5 | 28 | | 24 | 4 | 21 | 1404.4353 | | 0.3386E-02 | 6 | 22 | 4 | 19 | | 22 | 1 | 22 | 1413.2219 | 0.1446E-03 | |
| 6 | 14 | 6 | 8 | | 13 | 5 | 9 | 1404.6946 | -0.0007 | 0.5605E-01 | 3 | 17 | 3 | 15 | | 16 | 5 | 12 | 1413.3293 | 0.1486E-02 | |
| 6 | 14 | 6 | 9 | | 13 | 5 | 8 | 1404.7191 | -0.0005 | 0.5943E-01 | 6 | 7 | 7 | 0 | | 6 | 6 | 1 | 1413.3625 | 0.0013 | 0.2647E-01 |
| 4 | 25 | 8 | 19 | | 24 | 3 | 21 | 1404.9841 | | 0.1759E-03 | 6 | 7 | 7 | 1 | | 6 | 6 | 0 | 1413.3625 | 0.0013 | 0.2647E-01 |
| 6 | 15 | 9 | 6 | | 16 | 8 | 9 | 1405.1232 | | 0.8253E-04 | 6 | 12 | 9 | 4 | | 13 | 8 | 5 | 1413.3978 | 0.6076E-04 | |
| 6 | 15 | 9 | 7 | | 18 | 8 | 8 | 1405.1232 | | 0.8253E-04 | 6 | 12 | 9 | 3 | | 13 | 8 | 6 | 1413.3978 | 0.6076E-04 | |
| 3 | 14 | 3 | 12 | | 13 | 5 | 9 | 1405.3809 | | 0.6341E-02 | 6 | 30 | 8 | 22 | | 30 | 7 | 23 | 1413.4674 | 0.4498E-03 | |
| 6 | 23 | 3 | 21 | | 22 | 0 | 22 | 1405.3982 | | 0.4993E-03 | 6 | 30 | 8 | 23 | | 30 | 7 | 24 | 1413.4678 | 0.4498E-03 | |
| 3 | 14 | 3 | 11 | | 13 | 5 | 8 | 1405.6750 | | 0.2959E-02 | 6 | 18 | 6 | 12 | | 17 | 5 | 13 | 1413.5530 | -0.0008 | 0.3492E-01 |
| 4 | 23 | 6 | 18 | | 22 | 3 | 20 | 1405.8154 | | 0.2116E-03 | 6 | 18 | 6 | 13 | | 17 | 5 | 12 | 1413.5861 | -0.0005 | 0.3562E-01 |
| 6 | 26 | 5 | 22 | | 25 | 4 | 21 | 1405.8878 | | 0.2542E-02 | 6 | 29 | 8 | 21 | | 29 | 7 | 22 | 1413.9877 | 0.6156E-03 | |
| 4 | 26 | 6 | 20 | | 25 | 3 | 22 | 1406.0468 | | 0.1589E-03 | 6 | 29 | 8 | 22 | | 29 | 7 | 23 | 1413.9879 | 0.6156E-03 | |
| 6 | 19 | 4 | 16 | | 19 | 1 | 19 | 1406.3453 | | 0.1993E-03 | 3 | 19 | 1 | 19 | | 19 | 3 | 18 | 1414.1595 | 0.8274E-04 | |
| 6 | 26 | 5 | 21 | | 25 | 4 | 22 | 1406.5155 | | 0.2587E-02 | 3 | 17 | 3 | 14 | | 16 | 5 | 11 | 1414.2873 | 0.6115E-03 | |
| 6 | 15 | 6 | 9 | | 14 | 5 | 10 | 1406.9407 | -0.0009 | 0.5215E-01 | 6 | 13 | 4 | 10 | | 12 | 1 | 11 | 1414.4708 | 0.2922E-03 | |
| 6 | 15 | 6 | 10 | | 14 | 5 | 9 | 1406.9828 | -0.0004 | 0.5390E-01 | 6 | 28 | 8 | 20 | | 28 | 7 | 21 | 1414.4921 | 0.8314E-03 | |
| 4 | 27 | 6 | 21 | | 26 | 3 | 23 | 1406.9757 | | 0.1406E-03 | 6 | 28 | 8 | 21 | | 28 | 7 | 22 | 1414.4922 | 0.8314E-03 | |
| 6 | 27 | 5 | 23 | | 26 | 4 | 22 | 1407.7100 | | 0.1935E-02 | 6 | 30 | 5 | 25 | | 29 | 4 | 26 | 1414.7816 | 0.7887E-03 | |
| 4 | 28 | 6 | 22 | | 27 | 3 | 24 | 1407.7750 | | 0.1222E-03 | 4 | 27 | 6 | 22 | | 26 | 3 | 24 | 1414.8901 | 0.1557E-03 | |
| 6 | 9 | 4 | 6 | | 8 | 1 | 7 | 1407.8704 | | 0.6358E-04 | 6 | 27 | 8 | 19 | | 27 | 7 | 20 | 1414.9803 | 0.1108E-02 | |
| 6 | 14 | 9 | 6 | | 15 | 8 | 7 | 1407.9023 | | 0.6606E-04 | 6 | 27 | 8 | 20 | | 27 | 7 | 21 | 1414.9803 | 0.1108E-02 | |
| 6 | 14 | 9 | 5 | | 15 | 8 | 8 | 1407.9023 | | 0.6606E-04 | 6 | 25 | 3 | 23 | | 24 | 0 | 24 | 1415.0128 | 0.3234E-03 | |
| 3 | 15 | 3 | 13 | | 14 | 5 | 10 | 1408.0133 | | 0.3285E-02 | 6 | 28 | 8 | 18 | | 26 | 7 | 19 | 1415.4524 | 0.1456E-02 | |
| 4 | 24 | 6 | 19 | | 23 | 3 | 21 | 1408.0345 | | 0.2017E-03 | 6 | 26 | 8 | 19 | | 26 | 7 | 20 | 1415.4524 | 0.1456E-02 | |
| 4 | 29 | 6 | 23 | | 28 | 3 | 25 | 1408.4513 | | 0.1042E-03 | 6 | 8 | 7 | 1 | | 7 | 6 | 2 | 1415.8757 | 0.0011 | 0.2520E-01 |
| 3 | 15 | 3 | 12 | | 14 | 5 | 9 | 1408.4848 | | 0.1631E-02 | 6 | 8 | 7 | 2 | | 7 | 6 | 1 | 1415.8757 | 0.0011 | 0.2520E-01 |
| 6 | 20 | 4 | 17 | | 20 | 1 | 20 | 1408.4806 | | 0.1843E-03 | 6 | 19 | 6 | 13 | | 18 | 5 | 14 | 1415.7188 | -0.0008 | 0.2956E-01 |
| 6 | 27 | 5 | 22 | | 26 | 4 | 23 | 1408.5864 | | 0.1961E-02 | 6 | 19 | 8 | 14 | | 18 | 5 | 13 | 1415.7592 | -0.0008 | 0.3014E-01 |
| 6 | 28 | 2 | 26 | | 27 | 1 | 27 | 1408.9828 | | 0.6585E-03 | 6 | 23 | 4 | 20 | | 23 | 1 | 23 | 1415.8334 | 0.1229E-03 | |
| 4 | 30 | 6 | 24 | | 29 | 3 | 28 | 1409.0144 | | 0.8723E-04 | 6 | 25 | 8 | 17 | | 25 | 7 | 18 | 1415.9082 | 0.1887E-02 | |
| 6 | 18 | 6 | 10 | | 15 | 5 | 11 | 1409.1642 | -0.0008 | 0.4654E-01 | 6 | 25 | 8 | 18 | | 25 | 7 | 19 | 1415.9082 | 0.1887E-02 | |
| 6 | 18 | 6 | 11 | | 15 | 5 | 10 | 1409.1877 | -0.0004 | 0.4771E-01 | 3 | 18 | 3 | 18 | | 17 | 5 | 13 | 1416.0018 | 0.1120E-02 | |
| 6 | 28 | 5 | 24 | | 27 | 4 | 23 | 1409.4684 | | 0.1447E-02 | 6 | 14 | 4 | 11 | | 13 | 1 | 12 | 1416.0409 | 0.3804E-03 | |
| 6 | 10 | 4 | 7 | | 9 | 1 | 8 | 1409.5889 | | 0.1013E-03 | 6 | 11 | 9 | 2 | | 12 | 8 | 5 | 1416.1133 | 0.5006E-04 | |
| 6 | 24 | 3 | 22 | | 23 | 0 | 23 | 1410.1322 | | 0.4060E-03 | 6 | 11 | 9 | 3 | | 12 | 8 | 4 | 1416.1133 | 0.5006E-04 | |
| 4 | 25 | 8 | 20 | | 24 | 3 | 22 | 1410.2810 | | 0.1884E-03 | 6 | 24 | 8 | 18 | | 24 | 7 | 17 | 1416.3475 | 0.0029 | 0.2412E-02 |
| 6 | 28 | 5 | 23 | | 27 | 4 | 24 | 1410.6514 | | 0.1467E-02 | 6 | 24 | 8 | 17 | | 24 | 7 | 18 | 1416.3477 | 0.0029 | 0.2412E-02 |
| 6 | 13 | 9 | 4 | | 14 | 8 | 7 | 1410.8606 | | 0.6586E-04 | 6 | 29 | 2 | 27 | | 28 | 1 | 28 | 1416.5547 | 0.4626E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|---|----|----|-----------|----------|------------|---|----|----|----|----|---|----|-----------|-----------|------------|----------|
| 3 | 18 | 1 | 18 | 18 | 3 | 15 | | 1418.7275 | | 0.7314E-04 | 6 | 9 | 8 | 1 | 9 | 7 | 2 | 1420.8981 | 0.0003 | 0.7782E-02 | |
| 6 | 23 | 8 | 15 | 23 | 7 | 18 | | 1418.7704 | 0.0017 | 0.3038E-02 | 6 | 8 | 8 | 1 | 8 | 7 | 2 | 1421.0612 | 0.0005 | 0.4553E-02 | |
| 6 | 23 | 8 | 18 | 23 | 7 | 17 | | 1418.7704 | 0.0017 | 0.3038E-02 | 6 | 8 | 8 | 0 | 8 | 7 | 1 | 1421.0612 | 0.0005 | 0.4553E-02 | |
| 6 | 18 | 4 | 8 | 9 | 1 | 9 | | 1418.8132 | | 0.7174E-04 | 3 | 16 | 1 | 16 | 16 | 3 | 13 | 1421.1675 | | 0.9127E-04 | |
| 6 | 22 | 8 | 15 | 22 | 7 | 18 | | 1417.1788 | 0.0007 | 0.3771E-02 | 3 | 20 | 3 | 18 | 19 | 5 | 15 | 1421.3508 | | 0.6983E-03 | |
| 6 | 22 | 8 | 14 | 22 | 7 | 15 | | 1417.1788 | 0.0007 | 0.3771E-02 | 6 | 25 | 4 | 22 | 25 | 1 | 25 | 1421.5485 | | 0.8238E-04 | |
| 4 | 28 | 6 | 23 | 27 | 3 | 25 | | 1417.2712 | | 0.1379E-03 | 6 | 22 | 6 | 16 | 21 | 5 | 17 | 1422.0938 | -0.0010 | 0.1650E-01 | |
| 3 | 18 | 3 | 15 | 17 | 5 | 12 | | 1417.2993 | | 0.4186E-03 | 6 | 22 | 6 | 17 | 21 | 5 | 16 | 1422.1688 | -0.0004 | 0.1686E-01 | |
| 6 | 21 | 8 | 13 | 21 | 7 | 14 | | 1417.5868 | 0.0002 | 0.4809E-02 | 4 | 30 | 6 | 25 | 29 | 3 | 27 | 1422.2397 | | 0.1030E-03 | |
| 6 | 21 | 8 | 14 | 21 | 7 | 15 | | 1417.5868 | 0.0002 | 0.4809E-02 | 6 | 18 | 4 | 16 | 17 | 1 | 16 | 1422.3953 | | 0.7707E-03 | |
| 6 | 15 | 4 | 12 | 14 | 1 | 13 | | 1417.8034 | | 0.4772E-03 | 6 | 26 | 6 | 21 | 27 | 3 | 24 | 1422.4063 | | 0.5337E-04 | |
| 6 | 20 | 6 | 14 | 19 | 6 | 15 | | 1417.8848 | -0.0010 | 0.2467E-01 | 6 | 11 | 7 | 4 | 10 | 6 | 5 | 1422.5269 | 0.0008 | 0.2079E-01 | |
| 6 | 20 | 6 | 15 | 19 | 6 | 14 | | 1417.9144 | -0.0006 | 0.2517E-01 | 6 | 11 | 7 | 5 | 10 | 6 | 4 | 1422.5269 | 0.0008 | 0.2079E-01 | |
| 6 | 20 | 8 | 13 | 26 | 7 | 14 | | 1417.9388 | -0.0003 | 0.5546E-02 | 3 | 15 | 1 | 15 | 15 | 3 | 12 | 1423.0699 | | 0.9747E-04 | |
| 6 | 20 | 8 | 12 | 20 | 7 | 13 | | 1417.9388 | -0.0003 | 0.5546E-02 | 6 | 12 | 4 | 8 | 11 | 1 | 11 | 1423.4386 | | 0.1308E-03 | |
| 6 | 9 | 7 | 3 | 8 | 6 | 2 | | 1417.9740 | 0.0010 | 0.2384E-01 | 3 | 20 | 3 | 17 | 19 | 5 | 14 | 1423.6801 | | 0.2002E-03 | |
| 6 | 9 | 7 | 2 | 8 | 6 | 3 | | 1417.9740 | 0.0010 | 0.2384E-01 | 6 | 29 | 6 | 23 | 30 | 3 | 28 | 1423.9045 | | 0.2320E-03 | |
| 6 | 19 | 8 | 11 | 19 | 7 | 12 | | 1418.2948 | -0.0007 | 0.8583E-02 | 3 | 21 | 3 | 19 | 20 | 5 | 18 | 1424.0170 | | 0.5848E-03 | |
| 6 | 19 | 8 | 12 | 19 | 7 | 13 | | 1418.2948 | -0.0007 | 0.8583E-02 | 6 | 19 | 4 | 16 | 18 | 1 | 17 | 1424.0844 | | 0.8495E-03 | |
| 6 | 24 | 4 | 21 | 24 | 1 | 24 | | 1418.6085 | | 0.1019E-03 | 6 | 23 | 6 | 17 | 22 | 5 | 18 | 1424.1753 | -0.0010 | 0.1322E-01 | |
| 6 | 18 | 8 | 10 | 18 | 7 | 11 | | 1418.6331 | -0.0011 | 0.7633E-02 | 6 | 30 | 2 | 28 | 29 | 1 | 29 | 1424.2438 | | 0.3247E-03 | |
| 6 | 18 | 8 | 11 | 18 | 7 | 12 | | 1418.6331 | -0.0011 | 0.7633E-02 | 6 | 23 | 6 | 18 | 22 | 5 | 17 | 1424.2660 | -0.0003 | 0.1353E-01 | |
| 3 | 19 | 3 | 17 | 18 | 5 | 14 | | 1418.6771 | | 0.8748E-03 | 6 | 26 | 4 | 23 | 28 | 1 | 28 | 1424.8543 | | 0.6505E-04 | |
| 6 | 17 | 8 | 9 | 17 | 7 | 18 | | 1418.9548 | -0.0012 | 0.8715E-02 | 3 | 14 | 1 | 14 | 14 | 3 | 11 | 1424.7803 | | 0.1008E-03 | |
| 6 | 17 | 8 | 10 | 17 | 7 | 11 | | 1418.9548 | -0.0012 | 0.8715E-02 | 6 | 12 | 7 | 6 | 11 | 6 | 5 | 1424.7813 | 0.0005 | 0.1912E-01 | |
| 3 | 17 | 1 | 17 | 17 | 3 | 14 | | 1419.0585 | | 0.8290E-04 | 6 | 12 | 7 | 5 | 11 | 6 | 8 | 1424.7813 | 0.0005 | 0.1912E-01 | |
| 6 | 18 | 4 | 13 | 15 | 1 | 14 | | 1419.1725 | | 0.5782E-03 | 6 | 27 | 3 | 25 | 28 | 0 | 26 | 1425.1940 | | 0.1944E-03 | |
| 6 | 18 | 8 | 9 | 18 | 7 | 10 | | 1419.2589 | -0.0010 | 0.9751E-02 | 6 | 28 | 4 | 17 | 19 | 1 | 18 | 1425.8501 | | 0.9085E-03 | |
| 6 | 18 | 8 | 8 | 18 | 7 | 9 | | 1419.2589 | -0.0010 | 0.9751E-02 | 6 | 24 | 6 | 18 | 23 | 5 | 19 | 1426.2334 | -0.0006 | 0.1046E-01 | |
| 6 | 15 | 8 | 7 | 15 | 7 | 8 | | 1419.5458 | -0.0010 | 0.1067E-01 | 3 | 13 | 1 | 13 | 13 | 3 | 10 | 1426.3127 | | 0.1009E-03 | |
| 6 | 15 | 8 | 8 | 15 | 7 | 9 | | 1419.5458 | -0.0010 | 0.1067E-01 | 6 | 24 | 6 | 19 | 23 | 5 | 18 | 1426.3423 | -0.0002 | 0.1072E-01 | |
| 4 | 29 | 6 | 24 | 28 | 3 | 26 | | 1419.7174 | | 0.1201E-03 | 6 | 28 | 6 | 22 | 29 | 3 | 27 | 1426.4480 | | 0.2896E-03 | |
| 6 | 14 | 8 | 7 | 14 | 7 | 8 | | 1419.8152 | -0.0011 | 0.1139E-01 | 6 | 25 | 6 | 20 | 28 | 3 | 23 | 1426.6208 | | 0.7954E-04 | |
| 6 | 14 | 8 | 6 | 14 | 7 | 7 | | 1419.8152 | -0.0011 | 0.1139E-01 | 3 | 22 | 3 | 20 | 21 | 5 | 17 | 1426.8697 | | 0.4604E-03 | |
| 6 | 21 | 6 | 15 | 20 | 5 | 16 | | 1419.9899 | -0.0011 | 0.2031E-01 | 6 | 13 | 4 | 9 | 12 | 1 | 12 | 1426.9149 | | 0.1629E-03 | |
| 6 | 26 | 3 | 24 | 25 | 0 | 25 | | 1420.0342 | | 0.2529E-03 | 6 | 13 | 7 | 7 | 12 | 6 | 6 | 1427.0204 | 0.0005 | 0.1739E-01 | |
| 6 | 21 | 6 | 16 | 20 | 5 | 16 | | 1420.0511 | -0.0005 | 0.2074E-01 | 6 | 13 | 7 | 6 | 12 | 6 | 7 | 1427.0204 | 0.0005 | 0.1739E-01 | |
| 6 | 13 | 8 | 8 | 13 | 7 | 7 | | 1420.0873 | -0.0008 | 0.1180E-01 | 3 | 21 | 3 | 18 | 20 | 5 | 15 | 1427.0503 | | 0.1385E-03 | |
| 6 | 13 | 8 | 5 | 13 | 7 | 6 | | 1420.0873 | -0.0008 | 0.1180E-01 | 3 | 12 | 1 | 12 | 12 | 3 | 9 | 1427.6804 | | 0.9733E-04 | |
| 6 | 11 | 4 | 7 | 10 | 1 | 10 | | 1420.0714 | | 0.9978E-04 | 6 | 21 | 4 | 18 | 20 | 1 | 19 | 1427.7123 | | 0.9429E-03 | |
| 6 | 10 | 7 | 4 | 9 | 6 | 3 | | 1420.2579 | 0.0009 | 0.2238E-01 | 6 | 27 | 4 | 24 | 27 | 1 | 27 | 1427.9261 | | 0.5020E-04 | |
| 6 | 10 | 7 | 3 | 9 | 6 | 4 | | 1420.2579 | 0.0009 | 0.2238E-01 | 6 | 25 | 6 | 19 | 24 | 5 | 20 | 1428.2671 | | 0.8158E-02 | |
| 6 | 12 | 8 | 4 | 12 | 7 | 5 | | 1420.3015 | -0.0006 | 0.1179E-01 | 6 | 25 | 6 | 20 | 24 | 5 | 19 | 1428.3962 | -0.0002 | 0.8378E-02 | |
| 6 | 12 | 8 | 5 | 12 | 7 | 6 | | 1420.3015 | -0.0006 | 0.1179E-01 | 3 | 11 | 1 | 11 | 11 | 3 | 8 | 1428.8955 | | 0.9035E-04 | |
| 3 | 19 | 3 | 18 | 18 | 5 | 13 | | 1420.4331 | | 0.2883E-03 | 6 | 27 | 6 | 21 | 28 | 3 | 28 | 1429.0435 | | 0.3604E-03 | |
| 6 | 11 | 8 | 4 | 11 | 7 | 5 | | 1420.5182 | -0.0003 | 0.1122E-01 | 6 | 14 | 7 | 8 | 13 | 6 | 7 | 1429.2445 | 0.0003 | 0.1563E-01 | |
| 6 | 11 | 8 | 3 | 11 | 7 | 4 | | 1420.5182 | -0.0003 | 0.1122E-01 | 6 | 14 | 7 | 7 | 13 | 6 | 8 | 1429.2445 | 0.0003 | 0.1563E-01 | |
| 6 | 10 | 8 | 2 | 10 | 7 | 3 | | 1420.7170 | 0.0000 | 0.9937E-02 | 3 | 23 | 3 | 21 | 22 | 5 | 18 | 1429.3022 | | 0.3770E-03 | |
| 6 | 10 | 8 | 3 | 10 | 7 | 4 | | 1420.7170 | 0.0000 | 0.9937E-02 | 6 | 22 | 4 | 19 | 21 | 1 | 20 | 1429.6899 | | 0.9498E-03 | |
| 6 | 17 | 4 | 14 | 16 | 1 | 15 | | 1420.7642 | | 0.8782E-03 | 3 | 10 | 1 | 10 | 10 | 3 | 7 | 1429.9694 | | 0.8035E-04 | |
| 6 | 9 | 8 | 2 | 9 | 7 | 3 | | 1420.8981 | 0.0003 | 0.7782E-02 | 6 | 26 | 6 | 20 | 25 | 5 | 21 | 1430.2751 | -0.0003 | 0.8278E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 6 | 28 | 6 | 21 | 25 | 5 | 20 | | 1430.4263 | 0.0000 | 0.8484E-02 | 3 | 27 | 0 | 27 | 28 | 0 | 28 | 1435.2347 | | 0.5096E-02 | |
| 6 | 28 | 3 | 26 | 27 | 0 | 27 | | 1430.4900 | | 0.1473E-03 | 3 | 27 | 1 | 27 | 28 | 1 | 28 | 1435.2789 | 0.0008 | 0.1534E-01 | |
| 6 | 14 | 4 | 10 | 13 | 1 | 13 | | 1430.5121 | | 0.1937E-03 | 3 | 28 | 5 | 23 | 29 | 5 | 24 | 1435.2872 | | 0.3567E-02 | |
| 3 | 22 | 3 | 19 | 21 | 5 | 16 | | 1430.5525 | | 0.9505E-04 | 3 | 28 | 5 | 24 | 29 | 5 | 25 | 1435.2971 | | 0.3569E-02 | |
| 3 | 29 | 0 | 29 | 30 | 0 | 30 | | 1430.6012 | | 0.2852E-02 | 3 | 27 | 2 | 25 | 28 | 2 | 26 | 1435.3842 | | 0.3390E-02 | |
| 3 | 25 | 11 | 14 | 26 | 11 | 16 | | 1430.6107 | | 0.5353E-04 | 3 | 27 | 1 | 26 | 28 | 1 | 27 | 1435.4385 | -0.0010 | 0.1199E-01 | |
| 3 | 25 | 11 | 15 | 26 | 11 | 16 | | 1430.6107 | | 0.5353E-04 | 3 | 27 | 2 | 26 | 28 | 2 | 27 | 1435.6259 | 0.0033 | 0.3912E-02 | |
| 3 | 29 | 1 | 29 | 30 | 1 | 30 | | 1430.6354 | 0.0011 | 0.8569E-02 | 3 | 27 | 3 | 24 | 28 | 3 | 25 | 1435.7753 | 0.0000 | 0.8698E-02 | |
| 6 | 24 | 6 | 19 | 25 | 3 | 22 | | 1430.6908 | | 0.1173E-03 | 6 | 17 | 7 | 11 | 16 | 6 | 10 | 1435.8247 | 0.0000 | 0.1055E-01 | |
| 3 | 9 | 1 | 9 | 9 | 3 | 6 | | 1430.9122 | | 0.6808E-04 | 6 | 17 | 7 | 10 | 16 | 6 | 11 | 1435.8247 | 0.0000 | 0.1055E-01 | |
| 3 | 29 | 1 | 28 | 30 | 1 | 29 | | 1431.0327 | -0.0012 | 0.6528E-02 | 6 | 29 | 3 | 27 | 28 | 0 | 28 | 1435.9204 | | 0.1101E-03 | |
| 3 | 29 | 2 | 27 | 30 | 2 | 28 | | 1431.1321 | | 0.1803E-02 | 6 | 29 | 6 | 23 | 28 | 5 | 24 | 1436.1332 | | 0.2639E-02 | |
| 3 | 29 | 2 | 28 | 30 | 2 | 29 | | 1431.1953 | | 0.2130E-02 | 3 | 27 | 3 | 25 | 28 | 3 | 26 | 1436.2689 | -0.0012 | 0.8771E-02 | |
| 6 | 15 | 7 | 8 | 14 | 6 | 9 | | 1431.4534 | 0.0002 | 0.1388E-01 | 6 | 29 | 6 | 24 | 28 | 5 | 23 | 1436.3562 | | 0.2744E-02 | |
| 6 | 15 | 7 | 9 | 14 | 6 | 8 | | 1431.4534 | 0.0002 | 0.1388E-01 | 6 | 30 | 9 | 21 | 30 | 8 | 22 | 1436.3615 | | 0.7109E-04 | |
| 3 | 29 | 3 | 26 | 30 | 3 | 27 | | 1431.4983 | -0.0005 | 0.4622E-02 | 6 | 30 | 9 | 22 | 30 | 8 | 23 | 1436.3616 | | 0.7109E-04 | |
| 6 | 26 | 6 | 20 | 27 | 3 | 25 | | 1431.6838 | | 0.4473E-03 | 3 | 29 | 7 | 22 | 30 | 7 | 23 | 1436.3848 | | 0.1004E-02 | |
| 3 | 8 | 1 | 8 | 8 | 3 | 5 | | 1431.7336 | | 0.5450E-04 | 3 | 29 | 7 | 23 | 30 | 7 | 24 | 1436.3849 | | 0.1004E-02 | |
| 6 | 23 | 4 | 28 | 22 | 1 | 21 | | 1431.8816 | | 0.9285E-03 | 3 | 27 | 4 | 23 | 28 | 4 | 24 | 1436.4111 | | 0.2273E-02 | |
| 3 | 24 | 3 | 22 | 23 | 5 | 19 | | 1431.9072 | | 0.3093E-03 | 3 | 27 | 4 | 24 | 28 | 4 | 25 | 1436.4899 | | 0.2286E-02 | |
| 3 | 29 | 3 | 27 | 30 | 3 | 28 | | 1432.0227 | -0.0031 | 0.4707E-02 | 6 | 25 | 4 | 22 | 24 | 1 | 23 | 1436.4927 | | 0.8113E-03 | |
| 3 | 29 | 4 | 25 | 30 | 4 | 26 | | 1432.0472 | | 0.1220E-02 | 3 | 28 | 6 | 22 | 29 | 6 | 23 | 1436.5599 | | 0.7729E-03 | |
| 3 | 29 | 4 | 28 | 30 | 4 | 27 | | 1432.1410 | | 0.1232E-02 | 3 | 28 | 6 | 23 | 29 | 6 | 24 | 1436.5968 | | 0.7729E-03 | |
| 6 | 27 | 6 | 21 | 28 | 5 | 22 | | 1432.2563 | 0.0001 | 0.4787E-02 | 8 | 29 | 9 | 20 | 29 | 8 | 21 | 1436.9755 | | 0.9707E-04 | |
| 6 | 27 | 6 | 22 | 28 | 5 | 21 | | 1432.4312 | 0.0004 | 0.4922E-02 | 6 | 29 | 9 | 21 | 29 | 8 | 22 | 1436.9755 | | 0.9707E-04 | |
| 3 | 28 | 0 | 28 | 29 | 0 | 29 | | 1432.9204 | | 0.3838E-02 | 3 | 26 | 3 | 24 | 26 | 5 | 21 | 1437.0049 | | 0.2083E-03 | |
| 3 | 28 | 1 | 28 | 29 | 1 | 29 | | 1432.9578 | 0.0007 | 0.1154E-01 | 6 | 24 | 6 | 18 | 25 | 3 | 23 | 1437.0699 | | 0.6840E-03 | |
| 3 | 29 | 5 | 24 | 30 | 5 | 25 | | 1433.1463 | | 0.2806E-02 | 3 | 23 | 11 | 13 | 24 | 11 | 14 | 1437.2584 | | 0.9402E-04 | |
| 3 | 29 | 5 | 25 | 30 | 5 | 26 | | 1433.1573 | | 0.2808E-02 | 3 | 23 | 11 | 12 | 24 | 11 | 13 | 1437.2584 | | 0.9402E-04 | |
| 3 | 28 | 1 | 27 | 29 | 1 | 28 | | 1433.2372 | -0.0010 | 0.8902E-02 | 3 | 7 | 1 | 6 | 7 | 3 | 5 | 1437.2878 | | 0.5290E-04 | |
| 3 | 28 | 2 | 28 | 29 | 2 | 27 | | 1433.2639 | | 0.2488E-02 | 3 | 27 | 5 | 22 | 28 | 5 | 23 | 1437.4374 | -0.0015 | 0.4818E-02 | |
| 3 | 28 | 2 | 27 | 29 | 2 | 28 | | 1433.4064 | | 0.2909E-02 | 3 | 27 | 5 | 23 | 28 | 5 | 24 | 1437.4453 | 0.0034 | 0.4820E-02 | |
| 3 | 28 | 3 | 25 | 29 | 3 | 28 | | 1433.6273 | -0.0001 | 0.8384E-02 | 3 | 28 | 2 | 24 | 27 | 2 | 25 | 1437.5240 | | 0.4580E-02 | |
| 6 | 18 | 7 | 9 | 15 | 6 | 10 | | 1433.6489 | 0.0001 | 0.1217E-01 | 3 | 28 | 0 | 28 | 27 | 0 | 27 | 1437.5397 | | 0.6860E-02 | |
| 6 | 18 | 7 | 10 | 15 | 6 | 9 | | 1433.6489 | 0.0001 | 0.1217E-01 | 6 | 28 | 9 | 19 | 28 | 8 | 20 | 1437.5753 | | 0.1308E-03 | |
| 3 | 24 | 11 | 14 | 25 | 11 | 15 | | 1433.9333 | | 0.7142E-04 | 6 | 28 | 9 | 20 | 28 | 8 | 21 | 1437.5753 | | 0.1308E-03 | |
| 3 | 24 | 11 | 13 | 25 | 11 | 14 | | 1433.9333 | | 0.7142E-04 | 3 | 28 | 1 | 28 | 27 | 1 | 27 | 1437.5984 | 0.0005 | 0.2016E-01 | |
| 6 | 24 | 4 | 21 | 23 | 1 | 22 | | 1434.0642 | | 0.8809E-03 | 3 | 28 | 1 | 25 | 27 | 1 | 26 | 1437.6368 | -0.0007 | 0.1597E-01 | |
| 3 | 28 | 3 | 26 | 29 | 3 | 27 | | 1434.1384 | -0.0019 | 0.8489E-02 | 3 | 28 | 2 | 25 | 27 | 2 | 26 | 1437.8503 | 0.0027 | 0.5192E-02 | |
| 3 | 23 | 3 | 26 | 22 | 5 | 17 | | 1434.1930 | | 0.8453E-04 | 3 | 28 | 3 | 23 | 27 | 3 | 24 | 1437.9407 | 0.0002 | 0.1168E-01 | |
| 6 | 28 | 6 | 22 | 27 | 5 | 23 | | 1434.2094 | | 0.3571E-02 | 3 | 8 | 1 | 7 | 8 | 3 | 6 | 1437.9615 | | 0.7620E-04 | |
| 3 | 28 | 4 | 24 | 29 | 4 | 25 | | 1434.2251 | | 0.1877E-02 | 6 | 18 | 7 | 11 | 17 | 6 | 12 | 1437.9869 | 0.0001 | 0.9022E-02 | |
| 6 | 15 | 4 | 11 | 14 | 1 | 14 | | 1434.2343 | | 0.2209E-03 | 6 | 18 | 7 | 12 | 17 | 6 | 11 | 1437.9869 | 0.0001 | 0.9022E-02 | |
| 3 | 28 | 4 | 25 | 29 | 4 | 26 | | 1434.3120 | | 0.1889E-02 | 6 | 30 | 6 | 24 | 29 | 5 | 25 | 1438.0261 | | 0.1923E-02 | |
| 6 | 25 | 6 | 19 | 28 | 3 | 24 | | 1434.3617 | | 0.5538E-03 | 6 | 16 | 4 | 12 | 15 | 1 | 16 | 1438.0875 | | 0.2426E-03 | |
| 6 | 28 | 6 | 23 | 27 | 5 | 22 | | 1434.4084 | | 0.3700E-02 | 6 | 27 | 9 | 18 | 27 | 8 | 19 | 1438.1606 | | 0.1738E-03 | |
| 3 | 25 | 3 | 23 | 24 | 5 | 20 | | 1434.4774 | | 0.2539E-03 | 6 | 27 | 9 | 19 | 27 | 8 | 20 | 1438.1606 | | 0.1738E-03 | |
| 3 | 29 | 6 | 23 | 30 | 6 | 24 | | 1434.4987 | | 0.5658E-03 | 6 | 30 | 6 | 25 | 29 | 5 | 24 | 1438.2718 | | 0.2009E-02 | |
| 3 | 29 | 6 | 24 | 30 | 6 | 25 | | 1434.4998 | | 0.5658E-03 | 6 | 22 | 6 | 17 | 23 | 3 | 20 | 1438.3894 | | 0.2472E-03 | |
| 6 | 23 | 6 | 18 | 24 | 3 | 21 | | 1434.6136 | | 0.1712E-03 | 3 | 26 | 3 | 24 | 27 | 3 | 25 | 1438.4136 | -0.0006 | 0.1173E-01 | |
| 3 | 11 | 0 | 11 | 12 | 2 | 10 | | 1435.0663 | | 0.5708E-04 | 3 | 28 | 7 | 22 | 29 | 7 | 23 | 1438.4146 | | 0.1368E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 3 | 28 | 7 | 21 | | 29 | 7 | 22 | 1438.4146 | | 0.1368E-02 | 6 | 24 | 5 | 20 | | 25 | 8 | 25 | 1441.1208 | | 0.1177E-02 |
| 3 | 10 | 0 | 10 | | 11 | 2 | 9 | 1438.4647 | | 0.6175E-04 | 3 | 12 | 1 | 11 | | 12 | 3 | 10 | 1441.1414 | | 0.1988E-03 |
| 3 | 28 | 4 | 22 | | 27 | 4 | 23 | 1438.6053 | | 0.3039E-02 | 6 | 21 | 9 | 12 | | 21 | 8 | 13 | 1441.3469 | | 0.7087E-03 |
| 3 | 28 | 4 | 23 | | 27 | 4 | 24 | 1438.6752 | | 0.3051E-02 | 6 | 21 | 9 | 13 | | 21 | 8 | 14 | 1441.3459 | | 0.7087E-03 |
| 3 | 9 | 1 | 8 | | 9 | 3 | 7 | 1438.6937 | | 0.1033E-03 | 6 | 30 | 3 | 28 | | 29 | 0 | 29 | 1441.4843 | | 0.8130E-04 |
| 3 | 27 | 6 | 21 | | 28 | 6 | 22 | 1438.7020 | | 0.1042E-02 | 4 | 25 | 10 | 16 | | 26 | 7 | 20 | 1441.5620 | | 0.8574E-04 |
| 3 | 27 | 6 | 22 | | 28 | 6 | 23 | 1438.7024 | | 0.1042E-02 | 4 | 25 | 10 | 15 | | 26 | 7 | 19 | 1441.5620 | | 0.8574E-04 |
| 6 | 28 | 9 | 18 | | 28 | 8 | 19 | 1438.7312 | | 0.2278E-03 | 3 | 9 | 8 | 9 | | 10 | 2 | 8 | 1441.8410 | | 0.6302E-04 |
| 6 | 28 | 9 | 17 | | 28 | 8 | 18 | 1438.7312 | | 0.2278E-03 | 3 | 25 | 5 | 20 | | 26 | 5 | 21 | 1441.7633 | 0.0008 | 0.8438E-02 |
| 4 | 28 | 10 | 16 | | 27 | 7 | 20 | 1438.7733 | | 0.5354E-04 | 3 | 25 | 5 | 21 | | 26 | 5 | 22 | 1441.7682 | -0.0043 | 0.8439E-02 |
| 4 | 28 | 10 | 17 | | 27 | 7 | 21 | 1438.7734 | | 0.5354E-04 | 6 | 20 | 9 | 12 | | 26 | 8 | 13 | 1441.8184 | | 0.8484E-03 |
| 3 | 29 | 8 | 22 | | 30 | 8 | 23 | 1438.8217 | | 0.1881E-03 | 6 | 20 | 9 | 11 | | 26 | 8 | 12 | 1441.8184 | | 0.8484E-03 |
| 3 | 29 | 8 | 21 | | 30 | 8 | 22 | 1438.8217 | | 0.1881E-03 | 3 | 24 | 2 | 22 | | 26 | 2 | 23 | 1441.8387 | 0.0024 | 0.7933E-02 |
| 6 | 28 | 4 | 23 | | 25 | 1 | 24 | 1439.0995 | | 0.7258E-03 | 6 | 25 | 5 | 21 | | 26 | 8 | 26 | 1441.8555 | | 0.4198E-03 |
| 6 | 25 | 9 | 18 | | 25 | 8 | 17 | 1439.2864 | | 0.2945E-03 | 6 | 27 | 4 | 24 | | 26 | 1 | 25 | 1441.8940 | | 0.6305E-03 |
| 6 | 25 | 9 | 17 | | 25 | 8 | 18 | 1439.2864 | | 0.2945E-03 | 3 | 28 | 3 | 28 | | 27 | 5 | 23 | 1441.8998 | | 0.1396E-03 |
| 3 | 10 | 1 | 9 | | 10 | 3 | 8 | 1439.4749 | | 0.1336E-03 | 3 | 13 | 1 | 12 | | 13 | 3 | 11 | 1442.0021 | | 0.2310E-03 |
| 3 | 27 | 3 | 25 | | 28 | 5 | 22 | 1439.4817 | | 0.1707E-03 | 6 | 21 | 6 | 16 | | 22 | 3 | 19 | 1442.0215 | | 0.3538E-03 |
| 3 | 28 | 5 | 21 | | 27 | 5 | 22 | 1439.5981 | -0.0035 | 0.6420E-02 | 3 | 24 | 1 | 23 | | 25 | 1 | 24 | 1442.0271 | -0.0003 | 0.2728E-01 |
| 3 | 28 | 5 | 22 | | 27 | 5 | 23 | 1439.6023 | -0.0098R | 0.6421E-02 | 6 | 17 | 4 | 13 | | 16 | 1 | 16 | 1442.0784 | | 0.2572E-03 |
| 3 | 25 | 2 | 23 | | 28 | 2 | 24 | 1439.6752 | 0.0029 | 0.6055E-02 | 3 | 24 | 1 | 24 | | 25 | 1 | 25 | 1442.2324 | 0.0004 | 0.3353E-01 |
| 6 | 23 | 6 | 17 | | 24 | 3 | 22 | 1439.8018 | | 0.8438E-03 | 6 | 20 | 7 | 14 | | 19 | 6 | 13 | 1442.2635 | 0.0002 | 0.8359E-02 |
| 3 | 25 | 0 | 25 | | 28 | 0 | 28 | 1439.8084 | | 0.8318E-02 | 6 | 20 | 7 | 13 | | 19 | 6 | 14 | 1442.2635 | 0.0001 | 0.8359E-02 |
| 6 | 24 | 9 | 18 | | 24 | 8 | 17 | 1439.8259 | | 0.3752E-03 | 6 | 19 | 9 | 10 | | 19 | 8 | 11 | 1442.2727 | | 0.9981E-03 |
| 6 | 24 | 9 | 15 | | 24 | 8 | 18 | 1439.8259 | | 0.3752E-03 | 6 | 19 | 9 | 11 | | 19 | 8 | 12 | 1442.2727 | | 0.9981E-03 |
| 3 | 25 | 1 | 24 | | 28 | 1 | 25 | 1439.8326 | -0.0006 | 0.2100E-01 | 3 | 24 | 2 | 23 | | 25 | 2 | 24 | 1442.3123 | 0.0015 | 0.8798E-02 |
| 3 | 25 | 1 | 25 | | 28 | 1 | 26 | 1439.9183 | 0.0005 | 0.2616E-01 | 3 | 24 | 3 | 21 | | 25 | 3 | 22 | 1442.3239 | 0.0004 | 0.2021E-01 |
| 3 | 25 | 2 | 24 | | 28 | 2 | 25 | 1440.0793 | 0.0016 | 0.6802E-02 | 3 | 24 | 0 | 24 | | 25 | 0 | 25 | 1442.3431 | 0.1003E-01 | |
| 3 | 25 | 3 | 22 | | 28 | 3 | 23 | 1440.1237 | 0.0004 | 0.1548E-01 | 6 | 28 | 5 | 22 | | 27 | 0 | 27 | 1442.4979 | | 0.7074E-04 |
| 6 | 19 | 7 | 12 | | 18 | 8 | 13 | 1440.1332 | 0.0000 | 0.7622E-02 | 3 | 26 | 7 | 19 | | 27 | 7 | 20 | 1442.5043 | | 0.2429E-02 |
| 6 | 19 | 7 | 13 | | 18 | 8 | 12 | 1440.1332 | 0.0000 | 0.7622E-02 | 3 | 26 | 7 | 20 | | 27 | 7 | 21 | 1442.5043 | | 0.2429E-02 |
| 3 | 11 | 1 | 10 | | 11 | 3 | 9 | 1440.2946 | | 0.1658E-03 | 6 | 22 | 6 | 16 | | 23 | 3 | 21 | 1442.5502 | | 0.1041E-02 |
| 6 | 23 | 9 | 14 | | 23 | 8 | 15 | 1440.3492 | | 0.4710E-03 | 6 | 18 | 9 | 9 | | 18 | 8 | 10 | 1442.7086 | | 0.1153E-02 |
| 8 | 23 | 9 | 15 | | 23 | 8 | 16 | 1440.3492 | | 0.4710E-03 | 6 | 18 | 9 | 10 | | 18 | 8 | 11 | 1442.7086 | | 0.1153E-02 |
| 3 | 27 | 7 | 20 | | 28 | 7 | 21 | 1440.4541 | | 0.1836E-02 | 3 | 27 | 8 | 19 | | 28 | 8 | 20 | 1442.7188 | | 0.3439E-03 |
| 3 | 27 | 7 | 21 | | 28 | 7 | 22 | 1440.4541 | | 0.1836E-02 | 3 | 27 | 8 | 20 | | 28 | 8 | 21 | 1442.7188 | | 0.3439E-03 |
| 6 | 8 | 8 | 0 | | 7 | 7 | 1 | 1440.4862 | 0.0007 | 0.5227E-01 | 6 | 9 | 8 | 2 | | 8 | 7 | 1 | 1442.7288 | 0.0005 | 0.4940E-01 |
| 6 | 8 | 8 | 1 | | 7 | 7 | 0 | 1440.4862 | 0.0007 | 0.5227E-01 | 6 | 9 | 8 | 1 | | 8 | 7 | 2 | 1442.7288 | 0.0005 | 0.4940E-01 |
| 3 | 25 | 3 | 23 | | 28 | 3 | 24 | 1440.5720 | -0.0002 | 0.1548E-01 | 3 | 24 | 3 | 22 | | 25 | 3 | 23 | 1442.7437 | -0.0001 | 0.2014E-01 |
| 3 | 22 | 11 | 11 | | 23 | 11 | 12 | 1440.5868 | | 0.1220E-03 | 3 | 14 | 1 | 13 | | 14 | 3 | 12 | 1442.8632 | | 0.2609E-03 |
| 3 | 22 | 11 | 12 | | 23 | 11 | 13 | 1440.5868 | | 0.1220E-03 | 3 | 29 | 9 | 21 | | 30 | 9 | 22 | 1442.8651 | | 0.2837E-03 |
| 3 | 30 | 1 | 30 | | 30 | 1 | 29 | 1440.6890 | | 0.8367E-04 | 3 | 29 | 9 | 20 | | 30 | 9 | 21 | 1442.8651 | | 0.2837E-03 |
| 3 | 28 | 8 | 20 | | 29 | 8 | 21 | 1440.7666 | | 0.2561E-03 | 3 | 25 | 8 | 19 | | 26 | 6 | 20 | 1442.9417 | | 0.1816E-02 |
| 3 | 28 | 8 | 21 | | 29 | 8 | 22 | 1440.7666 | | 0.2561E-03 | 3 | 25 | 8 | 20 | | 26 | 6 | 21 | 1442.9418 | | 0.1816E-02 |
| 3 | 25 | 4 | 21 | | 28 | 4 | 22 | 1440.8077 | -0.0015 | 0.4007E-02 | 3 | 24 | 4 | 20 | | 25 | 4 | 21 | 1443.0183 | -0.0016 | 0.5209E-02 |
| 3 | 26 | 6 | 20 | | 27 | 6 | 21 | 1440.8171 | | 0.1385E-02 | 3 | 24 | 4 | 21 | | 25 | 4 | 22 | 1443.0699 | -0.0015 | 0.5220E-02 |
| 3 | 26 | 6 | 21 | | 27 | 6 | 22 | 1440.8174 | | 0.1385E-02 | 6 | 17 | 9 | 8 | | 17 | 8 | 9 | 1443.1255 | | 0.1305E-02 |
| 6 | 22 | 9 | 14 | | 22 | 8 | 15 | 1440.8561 | | 0.5824E-03 | 6 | 17 | 9 | 9 | | 17 | 8 | 10 | 1443.1255 | | 0.1305E-02 |
| 6 | 22 | 9 | 13 | | 22 | 8 | 14 | 1440.8561 | | 0.5824E-03 | 3 | 29 | 1 | 29 | | 29 | 1 | 28 | 1443.3575 | | 0.8444E-04 |
| 3 | 25 | 4 | 22 | | 28 | 4 | 23 | 1440.8684 | | 0.4018E-02 | 6 | 18 | 9 | 7 | | 16 | 8 | 8 | 1443.5229 | | 0.1444E-02 |
| 6 | 23 | 5 | 19 | | 24 | 0 | 24 | 1440.8948 | | 0.1069E-03 | 6 | 18 | 9 | 8 | | 16 | 8 | 9 | 1443.5229 | | 0.1444E-02 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|----|-----------|----------|------------|
| 3 | 15 | 1 | 14 | 15 | 3 | 13 | | 1443.7094 | | 0.2868E-03 | 3 | 18 | 1 | 17 | 18 | 3 | 16 | | 1445.9921 | | 0.3272E-03 |
| 6 | 15 | 9 | 8 | 15 | 8 | 7 | | 1443.9005 | | 0.1558E-02 | 3 | 28 | 1 | 28 | 28 | 1 | 27 | | 1448.0608 | | 0.1111E-03 |
| 6 | 15 | 9 | 7 | 15 | 8 | 8 | | 1443.9005 | | 0.1558E-02 | 3 | 28 | 1 | 27 | 28 | 3 | 26 | | 1448.1013 | | 0.1061E-03 |
| 3 | 21 | 11 | 11 | 22 | 11 | 12 | | 1443.9193 | | 0.1581E-03 | 3 | 23 | 5 | 18 | 24 | 5 | 19 | | 1448.1248 | 0.0006 | 0.1398E-01 |
| 3 | 21 | 11 | 10 | 22 | 11 | 11 | | 1443.9193 | | 0.1581E-03 | 3 | 23 | 5 | 19 | 24 | 5 | 20 | | 1448.1274 | -0.0022 | 0.1398E-01 |
| 3 | 24 | 6 | 19 | 25 | 5 | 20 | | 1443.9395 | 0.0008 | 0.1094E-01 | 3 | 22 | 2 | 20 | 23 | 2 | 21 | | 1448.2075 | 0.0017 | 0.1307E-01 |
| 3 | 24 | 5 | 20 | 25 | 5 | 21 | | 1443.9432 | -0.0031 | 0.1094E-01 | 6 | 18 | 4 | 14 | 17 | 1 | 17 | | 1448.2133 | | 0.2638E-03 |
| 3 | 23 | 2 | 21 | 24 | 2 | 22 | | 1444.0157 | 0.0020 | 0.1025E-01 | 3 | 22 | 1 | 21 | 23 | 1 | 22 | | 1448.4163 | 0.0000 | 0.4434E-01 |
| 3 | 23 | 1 | 22 | 24 | 1 | 23 | | 1444.2209 | -0.0002 | 0.3500E-01 | 3 | 28 | 0 | 28 | 28 | 2 | 25 | | 1448.4840 | | 0.5326E-04 |
| 3 | 29 | 3 | 27 | 28 | 5 | 24 | | 1444.2513 | | 0.1140E-03 | 3 | 27 | 9 | 19 | 28 | 9 | 20 | | 1448.4713 | | 0.5176E-03 |
| 6 | 14 | 9 | 5 | 14 | 8 | 6 | | 1444.2574 | | 0.1832E-02 | 3 | 27 | 9 | 18 | 28 | 9 | 19 | | 1448.4713 | | 0.5176E-03 |
| 6 | 14 | 9 | 6 | 14 | 8 | 7 | | 1444.2574 | | 0.1832E-02 | 6 | 22 | 7 | 16 | 21 | 6 | 15 | | 1448.4756 | 0.0006 | 0.4259E-02 |
| 3 | 30 | 1 | 29 | 30 | 3 | 28 | | 1444.2620 | | 0.6432E-04 | 6 | 22 | 7 | 15 | 21 | 6 | 16 | | 1448.4767 | 0.0005 | 0.4259E-02 |
| 4 | 24 | 10 | 15 | 25 | 7 | 19 | | 1444.3293 | | 0.1470E-03 | 3 | 30 | 3 | 28 | 29 | 5 | 25 | | 1448.5283 | | 0.9287E-04 |
| 4 | 24 | 10 | 14 | 25 | 7 | 18 | | 1444.3293 | | 0.1470E-03 | 3 | 19 | 1 | 18 | 19 | 3 | 17 | | 1448.6094 | | 0.3254E-03 |
| 6 | 21 | 7 | 15 | 20 | 6 | 14 | | 1444.3777 | 0.0002 | 0.5237E-02 | 3 | 24 | 7 | 18 | 25 | 7 | 19 | | 1448.6406 | | 0.4043E-02 |
| 6 | 21 | 7 | 14 | 20 | 6 | 15 | | 1444.3777 | 0.0001 | 0.5237E-02 | 3 | 24 | 7 | 17 | 25 | 7 | 18 | | 1448.6406 | | 0.4043E-02 |
| 3 | 16 | 1 | 15 | 18 | 3 | 14 | | 1444.5243 | | 0.3072E-03 | 3 | 25 | 8 | 17 | 26 | 8 | 18 | | 1448.6475 | | 0.5948E-03 |
| 3 | 23 | 3 | 20 | 24 | 3 | 21 | | 1444.5408 | | 0.2602E-01 | 3 | 25 | 8 | 18 | 26 | 8 | 19 | | 1448.6475 | | 0.5948E-03 |
| 3 | 23 | 1 | 23 | 24 | 1 | 24 | | 1444.5468 | | 0.4244E-01 | 3 | 22 | 3 | 19 | 23 | 3 | 20 | | 1448.7733 | 0.0004 | 0.3301E-01 |
| 3 | 23 | 0 | 23 | 24 | 0 | 24 | | 1444.5488 | | 0.1408E-01 | 3 | 27 | 1 | 26 | 27 | 3 | 25 | | 1448.7897 | | 0.1305E-03 |
| 3 | 23 | 2 | 22 | 24 | 2 | 23 | | 1444.5492 | | 0.1123E-01 | 3 | 22 | 2 | 21 | 23 | 2 | 22 | | 1448.7906 | 0.0009 | 0.1415E-01 |
| 3 | 25 | 7 | 18 | 26 | 7 | 19 | | 1444.5659 | | 0.3162E-02 | 3 | 22 | 0 | 22 | 23 | 0 | 23 | | 1448.8351 | -0.0022 | 0.1770E-01 |
| 3 | 25 | 7 | 19 | 26 | 7 | 20 | | 1444.5659 | | 0.3162E-02 | 3 | 22 | 1 | 22 | 23 | 1 | 23 | | 1448.8594 | 0.0002 | 0.5302E-01 |
| 6 | 13 | 9 | 4 | 13 | 8 | 5 | | 1444.5934 | | 0.1648E-02 | 4 | 23 | 10 | 13 | 24 | 7 | 17 | | 1447.0732 | | 0.2843E-03 |
| 6 | 13 | 9 | 5 | 13 | 8 | 6 | | 1444.5934 | | 0.1648E-02 | 4 | 23 | 10 | 14 | 24 | 7 | 18 | | 1447.0732 | | 0.2843E-03 |
| 3 | 8 | 0 | 8 | 9 | 2 | 7 | | 1444.6241 | | 0.6049E-04 | 3 | 20 | 1 | 19 | 20 | 3 | 18 | | 1447.1254 | | 0.3158E-03 |
| 3 | 28 | 9 | 19 | 29 | 9 | 20 | | 1444.6665 | | 0.3859E-03 | 3 | 22 | 3 | 20 | 23 | 3 | 21 | | 1447.1260 | 0.0003 | 0.3270E-01 |
| 3 | 28 | 9 | 20 | 29 | 9 | 21 | | 1444.6665 | | 0.3859E-03 | 6 | 11 | 8 | 4 | 10 | 7 | 3 | | 1447.1993 | -0.0001 | 0.4306E-01 |
| 3 | 26 | 8 | 19 | 27 | 8 | 20 | | 1444.6787 | | 0.4555E-03 | 6 | 11 | 8 | 3 | 10 | 7 | 4 | | 1447.1993 | -0.0001 | 0.4306E-01 |
| 3 | 26 | 8 | 18 | 27 | 8 | 19 | | 1444.6787 | | 0.4555E-03 | 3 | 23 | 6 | 17 | 24 | 6 | 18 | | 1447.2197 | 0.0019 | 0.2995E-02 |
| 6 | 28 | 4 | 25 | 27 | 1 | 28 | | 1444.8828 | | 0.5327E-03 | 3 | 23 | 6 | 18 | 24 | 6 | 19 | | 1447.2198 | 0.0018 | 0.2995E-02 |
| 6 | 12 | 9 | 3 | 12 | 8 | 4 | | 1444.9080 | | 0.1584E-02 | 3 | 20 | 11 | 10 | 21 | 11 | 11 | | 1447.2571 | | 0.1987E-03 |
| 8 | 12 | 9 | 4 | 12 | 8 | 5 | | 1444.9080 | | 0.1584E-02 | 3 | 20 | 11 | 9 | 21 | 11 | 10 | | 1447.2571 | | 0.1987E-03 |
| 3 | 23 | 3 | 21 | 24 | 3 | 22 | | 1444.9283 | 0.0002 | 0.2585E-01 | 3 | 26 | 1 | 25 | 26 | 3 | 24 | | 1447.3162 | | 0.1587E-03 |
| 6 | 10 | 8 | 3 | 9 | 7 | 2 | | 1444.9729 | 0.0000 | 0.4633E-01 | 3 | 7 | 0 | 7 | 8 | 2 | 6 | | 1447.4447 | | 0.5437E-04 |
| 6 | 10 | 8 | 2 | 9 | 7 | 3 | | 1444.9729 | 0.0000 | 0.4633E-01 | 3 | 22 | 4 | 18 | 23 | 4 | 19 | | 1447.4640 | -0.0012 | 0.8442E-02 |
| 3 | 24 | 6 | 18 | 25 | 6 | 19 | | 1445.0757 | 0.0021 | 0.2349E-02 | 3 | 22 | 4 | 19 | 23 | 4 | 20 | | 1447.4994 | -0.0012 | 0.8450E-02 |
| 3 | 24 | 8 | 19 | 25 | 6 | 20 | | 1445.0759 | 0.0019 | 0.2349E-02 | 3 | 21 | 1 | 20 | 21 | 3 | 19 | | 1447.5238 | | 0.2991E-03 |
| 6 | 11 | 9 | 3 | 11 | 8 | 4 | | 1445.2004 | | 0.1416E-02 | 3 | 25 | 1 | 24 | 25 | 3 | 23 | | 1447.6777 | | 0.1888E-03 |
| 6 | 11 | 9 | 2 | 11 | 8 | 3 | | 1445.2004 | | 0.1416E-02 | 3 | 22 | 1 | 21 | 22 | 3 | 20 | | 1447.7891 | | 0.2764E-03 |
| 3 | 23 | 4 | 19 | 24 | 4 | 20 | | 1445.2371 | -0.0013 | 0.6679E-02 | 3 | 24 | 1 | 23 | 24 | 3 | 22 | | 1447.8744 | | 0.2195E-03 |
| 3 | 29 | 1 | 28 | 29 | 3 | 27 | | 1445.2563 | | 0.8300E-04 | 3 | 23 | 1 | 22 | 23 | 3 | 21 | | 1447.9093 | | 0.2493E-03 |
| 3 | 23 | 4 | 20 | 24 | 4 | 21 | | 1445.2802 | -0.0014 | 0.6688E-02 | 6 | 29 | 4 | 26 | 28 | 1 | 27 | | 1448.0895 | | 0.4380E-03 |
| 3 | 17 | 1 | 18 | 17 | 3 | 15 | | 1445.2911 | | 0.3210E-03 | 6 | 20 | 6 | 14 | 21 | 3 | 19 | | 1448.0734 | | 0.1598E-02 |
| 6 | 21 | 6 | 15 | 22 | 3 | 20 | | 1445.3094 | | 0.1286E-02 | 3 | 28 | 9 | 17 | 27 | 9 | 18 | | 1448.2805 | | 0.6845E-03 |
| 6 | 10 | 9 | 1 | 10 | 8 | 2 | | 1445.4705 | | 0.1119E-02 | 3 | 28 | 9 | 18 | 27 | 9 | 19 | | 1448.2805 | | 0.6845E-03 |
| 6 | 10 | 9 | 2 | 10 | 8 | 3 | | 1445.4705 | | 0.1119E-02 | 3 | 22 | 5 | 17 | 23 | 5 | 18 | | 1448.3191 | 0.0002 | 0.1762E-01 |
| 6 | 20 | 6 | 15 | 21 | 3 | 18 | | 1445.5159 | | 0.5027E-03 | 3 | 22 | 5 | 18 | 23 | 5 | 19 | | 1448.3210 | -0.0018 | 0.1762E-01 |
| 6 | 9 | 9 | 0 | 9 | 8 | 1 | | 1445.7177 | | 0.6591E-03 | 3 | 25 | 0 | 25 | 25 | 2 | 24 | | 1448.4045 | | 0.5672E-04 |
| 6 | 9 | 9 | 1 | 9 | 8 | 2 | | 1445.7177 | | 0.6591E-03 | 3 | 21 | 2 | 19 | 22 | 2 | 20 | | 1448.4149 | 0.0014 | 0.1643E-01 |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 6 | 23 | 7 | 17 | 22 | 6 | 16 | | 1448.5571 | 0.0005 | 0.3419E-02 | 3 | 28 | 18 | 19 | 29 | 10 | 20 | 1451.6333 | | 0.5528E-04 | |
| 8 | 23 | 7 | 16 | 22 | 6 | 17 | | 1448.5573 | 0.0004 | 0.3419E-02 | 3 | 24 | 9 | 15 | 25 | 9 | 16 | 1451.9147 | | 0.1146E-02 | |
| 3 | 21 | 1 | 20 | 22 | 1 | 21 | | 1448.6145 | -0.0001 | 0.5544E-01 | 3 | 24 | 9 | 16 | 25 | 9 | 17 | 1451.9147 | | 0.1146E-02 | |
| 3 | 24 | 8 | 16 | 25 | 8 | 17 | | 1448.6255 | | 0.7854E-03 | 3 | 20 | 4 | 16 | 21 | 4 | 17 | 1451.9427 | -0.0011 | 0.1292E-01 | |
| 3 | 24 | 8 | 17 | 25 | 8 | 18 | | 1448.6255 | | 0.7854E-03 | 3 | 20 | 4 | 17 | 21 | 4 | 18 | 1451.9851 | -0.0011 | 0.1292E-01 | |
| 3 | 23 | 7 | 16 | 24 | 7 | 17 | | 1448.7316 | | 0.5043E-02 | 6 | 18 | 6 | 13 | 19 | 3 | 16 | 1452.1259 | | 0.1010E-02 | |
| 3 | 23 | 7 | 17 | 24 | 7 | 18 | | 1448.7316 | | 0.5043E-02 | 3 | 23 | 0 | 23 | 23 | 2 | 22 | 1452.3058 | | 0.1287E-03 | |
| 3 | 27 | 1 | 27 | 27 | 1 | 26 | | 1448.7979 | | 0.1449E-03 | 4 | 21 | 10 | 12 | 22 | 7 | 16 | 1452.4259 | | 0.2548E-02 | |
| 6 | 19 | 6 | 14 | 20 | 3 | 17 | | 1448.8809 | | 0.7116E-03 | 4 | 21 | 10 | 11 | 22 | 7 | 16 | 1452.4259 | | 0.2548E-02 | |
| 3 | 21 | 3 | 18 | 22 | 3 | 19 | | 1449.0208 | 0.0004 | 0.4126E-01 | 3 | 22 | 8 | 14 | 23 | 8 | 15 | 1452.6129 | | 0.1212E-02 | |
| 3 | 21 | 2 | 20 | 22 | 2 | 21 | | 1449.0367 | 0.0007 | 0.1780E-01 | 3 | 22 | 8 | 15 | 23 | 8 | 16 | 1452.6129 | | 0.1212E-02 | |
| 3 | 21 | 0 | 21 | 22 | 0 | 22 | | 1449.1281 | -0.0019 | 0.2188E-01 | 6 | 25 | 7 | 19 | 24 | 6 | 18 | 1452.6705 | | 0.2121E-02 | |
| 3 | 21 | 1 | 21 | 22 | 1 | 22 | | 1449.1705 | 0.0001 | 0.8640E-01 | 6 | 25 | 7 | 18 | 24 | 6 | 19 | 1452.6707 | | 0.2121E-02 | |
| 3 | 21 | 3 | 19 | 22 | 3 | 20 | | 1449.3365 | 0.0003 | 0.4079E-01 | 3 | 20 | 5 | 15 | 21 | 5 | 16 | 1452.7360 | 0.0000 | 0.2680E-01 | |
| 3 | 22 | 6 | 18 | 23 | 8 | 17 | | 1449.3738 | 0.0018 | 0.3764E-02 | 3 | 20 | 5 | 16 | 21 | 5 | 17 | 1452.7371 | -0.0010 | 0.2680E-01 | |
| 3 | 22 | 6 | 17 | 23 | 6 | 18 | | 1449.3739 | 0.0018 | 0.3764E-02 | 3 | 19 | 2 | 17 | 20 | 2 | 18 | 1452.8809 | 0.0009 | 0.2487E-01 | |
| 6 | 12 | 8 | 4 | 11 | 7 | 5 | | 1449.4080 | -0.0006 | 0.3961E-01 | 3 | 19 | 1 | 18 | 20 | 1 | 19 | 1453.0278 | 0.0002 | 0.8329E-01 | |
| 6 | 12 | 8 | 5 | 11 | 7 | 4 | | 1449.4080 | -0.0006 | 0.3961E-01 | 3 | 21 | 7 | 14 | 22 | 7 | 15 | 1453.0302 | | 0.5688E-02 | |
| 3 | 21 | 4 | 17 | 22 | 4 | 18 | | 1449.8993 | -0.0013 | 0.1052E-01 | 3 | 21 | 7 | 15 | 22 | 7 | 16 | 1453.0302 | | 0.5688E-02 | |
| 3 | 21 | 4 | 18 | 22 | 4 | 19 | | 1449.7275 | -0.0014 | 0.1053E-01 | 3 | 27 | 10 | 17 | 28 | 10 | 18 | 1453.2784 | | 0.7388E-04 | |
| 4 | 22 | 10 | 12 | 23 | 7 | 18 | | 1449.7854 | | 0.6933E-03 | 3 | 27 | 10 | 18 | 28 | 10 | 19 | 1453.2784 | | 0.7388E-04 | |
| 4 | 22 | 10 | 13 | 23 | 7 | 17 | | 1449.7854 | | 0.6933E-03 | 3 | 19 | 2 | 18 | 20 | 2 | 19 | 1453.5447 | 0.0002 | 0.2812E-01 | |
| 3 | 25 | 9 | 18 | 28 | 9 | 17 | | 1450.0946 | | 0.8922E-03 | 3 | 19 | 3 | 16 | 20 | 3 | 17 | 1453.5547 | 0.0002 | 0.8181E-01 | |
| 3 | 25 | 9 | 17 | 26 | 9 | 18 | | 1450.0946 | | 0.8922E-03 | 6 | 18 | 6 | 12 | 19 | 3 | 17 | 1453.5952 | | 0.2563E-02 | |
| 6 | 19 | 4 | 15 | 18 | 1 | 18 | | 1450.4983 | | 0.2824E-03 | 3 | 19 | 0 | 19 | 20 | 0 | 20 | 1453.7085 | -0.0012 | 0.3208E-01 | |
| 3 | 21 | 5 | 18 | 22 | 5 | 17 | | 1450.5228 | 0.0000 | 0.2189E-01 | 3 | 20 | 6 | 14 | 21 | 6 | 15 | 1453.7133 | 0.0018 | 0.5687E-02 | |
| 3 | 21 | 5 | 17 | 22 | 5 | 18 | | 1450.5242 | -0.0014 | 0.2189E-01 | 3 | 20 | 6 | 15 | 21 | 6 | 16 | 1453.7134 | 0.0018 | 0.5687E-02 | |
| 3 | 24 | 0 | 24 | 24 | 2 | 23 | | 1450.5547 | | 0.1192E-03 | 3 | 23 | 9 | 15 | 24 | 9 | 16 | 1453.7415 | | 0.1449E-02 | |
| 3 | 19 | 11 | 8 | 20 | 11 | 9 | | 1450.6014 | | 0.2438E-03 | 3 | 23 | 9 | 14 | 24 | 9 | 16 | 1453.7415 | | 0.1449E-02 | |
| 3 | 19 | 11 | 9 | 20 | 11 | 10 | | 1450.6014 | | 0.2438E-03 | 6 | 14 | 8 | 6 | 13 | 7 | 7 | 1453.7719 | -0.0010 | 0.3242E-01 | |
| 3 | 23 | 8 | 16 | 24 | 8 | 17 | | 1450.6136 | | 0.9705E-03 | 6 | 14 | 8 | 7 | 13 | 7 | 6 | 1453.7719 | -0.0010 | 0.3242E-01 | |
| 3 | 23 | 8 | 15 | 24 | 8 | 16 | | 1450.6136 | | 0.9705E-03 | 3 | 19 | 1 | 19 | 20 | 1 | 20 | 1453.7885 | 0.0001 | 0.9564E-01 | |
| 8 | 24 | 7 | 18 | 23 | 6 | 17 | | 1450.6221 | 0.0008 | 0.2710E-02 | 3 | 19 | 3 | 17 | 20 | 3 | 18 | 1453.7954 | 0.0003 | 0.8070E-01 | |
| 6 | 24 | 7 | 17 | 23 | 6 | 18 | | 1450.6223 | 0.0006 | 0.2710E-02 | 3 | 18 | 11 | 7 | 19 | 11 | 8 | 1453.9543 | | 0.2967E-03 | |
| 3 | 20 | 2 | 18 | 21 | 2 | 19 | | 1450.6392 | 0.0012 | 0.2036E-01 | 3 | 18 | 11 | 8 | 19 | 11 | 9 | 1453.9543 | | 0.2967E-03 | |
| 3 | 20 | 1 | 19 | 21 | 1 | 20 | | 1450.6177 | 0.0000 | 0.6842E-01 | 3 | 22 | 0 | 22 | 22 | 2 | 21 | 1454.0627 | | 0.1510E-03 | |
| 6 | 19 | 6 | 13 | 20 | 3 | 18 | | 1450.6370 | | 0.2005E-02 | 3 | 19 | 4 | 15 | 20 | 4 | 18 | 1454.1947 | -0.0011 | 0.1563E-01 | |
| 3 | 22 | 7 | 18 | 23 | 7 | 17 | | 1450.8479 | | 0.5981E-02 | 3 | 19 | 4 | 16 | 20 | 4 | 17 | 1454.2118 | -0.0010 | 0.1563E-01 | |
| 3 | 22 | 7 | 15 | 23 | 7 | 16 | | 1450.8479 | | 0.5981E-02 | 3 | 25 | 1 | 25 | 25 | 1 | 24 | 1454.3615 | | 0.2405E-03 | |
| 3 | 20 | 3 | 17 | 21 | 3 | 18 | | 1451.2818 | 0.0005 | 0.5081E-01 | 3 | 21 | 8 | 14 | 22 | 8 | 15 | 1454.6238 | | 0.1490E-02 | |
| 3 | 20 | 2 | 19 | 21 | 2 | 20 | | 1451.2878 | | 0.2159E-01 | 3 | 21 | 8 | 13 | 22 | 8 | 14 | 1454.6238 | | 0.1490E-02 | |
| 3 | 20 | 0 | 20 | 21 | 0 | 21 | | 1451.4198 | -0.0015 | 0.2667E-01 | 6 | 28 | 7 | 20 | 25 | 6 | 19 | 1454.7021 | | 0.1638E-02 | |
| 6 | 30 | 4 | 27 | 29 | 1 | 28 | | 1451.4547 | | 0.3509E-03 | 6 | 28 | 7 | 19 | 25 | 6 | 20 | 1454.7026 | | 0.1638E-02 | |
| 3 | 20 | 1 | 20 | 21 | 1 | 21 | | 1451.4801 | 0.0000 | 0.7982E-01 | 3 | 20 | 7 | 13 | 21 | 7 | 14 | 1454.8408 | | 0.7982E-02 | |
| 3 | 21 | 6 | 15 | 22 | 6 | 16 | | 1451.5383 | 0.0017 | 0.4661E-02 | 3 | 20 | 7 | 14 | 21 | 7 | 15 | 1454.8408 | | 0.7982E-02 | |
| 3 | 21 | 6 | 16 | 22 | 6 | 17 | | 1451.5385 | 0.0016 | 0.4661E-02 | 3 | 26 | 10 | 17 | 27 | 10 | 18 | 1454.9172 | | 0.9734E-04 | |
| 3 | 20 | 3 | 18 | 21 | 3 | 19 | | 1451.5598 | 0.0002 | 0.5014E-01 | 3 | 26 | 10 | 16 | 27 | 10 | 17 | 1454.9172 | | 0.9734E-04 | |
| 3 | 28 | 1 | 26 | 26 | 1 | 25 | | 1451.5683 | | 0.1875E-03 | 6 | 20 | 4 | 16 | 19 | 1 | 19 | 1454.9403 | | 0.2534E-03 | |
| 6 | 13 | 8 | 5 | 12 | 7 | 6 | | 1451.5988 | -0.0006 | 0.3604E-01 | 3 | 19 | 5 | 14 | 20 | 5 | 16 | 1454.9589 | 0.0000 | 0.3232E-01 | |
| 6 | 13 | 8 | 8 | 12 | 7 | 5 | | 1451.5988 | -0.0006 | 0.3604E-01 | 3 | 19 | 5 | 15 | 20 | 5 | 16 | 1454.9598 | -0.0007 | 0.3232E-01 | |
| 3 | 28 | 10 | 18 | 29 | 10 | 19 | | 1451.6333 | | 0.5528E-04 | 3 | 18 | 2 | 16 | 19 | 2 | 17 | 1455.1409 | 0.0006 | 0.2992E-01 | |

| | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | | | |
|---|----|----|----|----|----|----|-----------|-----------|------------|--------------|--------------|---|------------|----|----|----|----|----|-----------|------------|------------|------------|------------|------------|--|
| 3 | 18 | 1 | 17 | 19 | 1 | 19 | 18 | 3 | 15 | 1455.2487 | 0.0002 | 0 | 9899E-01 | | 17 | 0 | 17 | 18 | 0 | 1458.2740 | 0.4457E-01 | | | | |
| 3 | 17 | 6 | 12 | 18 | 3 | 15 | 1455.2618 | | 0.1455E-02 | 0.2025E-02 | 0.2025E-02 | 3 | 16 | 8 | 11 | 17 | 3 | 14 | 1458.2994 | 0.2170E-02 | | | | | |
| 4 | 4 | 20 | 10 | 10 | 21 | 7 | 14 | 1455.4337 | | 0.2025E-02 | 0.2025E-02 | 3 | 17 | 3 | 15 | 18 | 3 | 16 | 1458.3051 | 0.0004 | 0.8472E-01 | | | | |
| 4 | 4 | 20 | 10 | 11 | 21 | 7 | 15 | 1455.4337 | | 0.2025E-02 | 0.1805E-02 | 3 | 17 | 1 | 17 | 18 | 1 | 18 | 1458.4925 | 0.0008 | 0.1324E+00 | | | | |
| 4 | 4 | 22 | 9 | 13 | 23 | 9 | 14 | 1455.5760 | | 0.1805E-02 | 0.1805E-02 | 3 | 29 | 16 | 20 | 29 | 9 | 21 | 1458.4789 | 0.1068E-03 | 0.1068E-03 | | | | |
| 3 | 3 | 21 | 6 | 21 | 21 | 2 | 20 | 1455.7432 | | 0.1783E-03 | 0.3116E-01 | 3 | 19 | 8 | 12 | 20 | 8 | 13 | 1458.6833 | -0.0010 | 0.2142E-02 | | | | |
| 3 | 3 | 18 | 2 | 17 | 19 | 2 | 18 | 1455.8074 | 0.0002 | 0.3116E-01 | 0.0002 | 0 | 6.7355E-01 | 3 | 19 | 8 | 11 | 20 | 8 | 12 | 1458.6833 | -0.0252R | 0.2142E-02 | | |
| 3 | 3 | 18 | 3 | 15 | 19 | 3 | 18 | 1455.8391 | 0.0002 | 0.6.7355E-01 | 0.6.7355E-01 | 0 | 6.5012E-04 | 3 | 28 | 7 | 22 | 27 | 6 | 21 | 1458.7156 | 0.9404E-03 | 0.9404E-03 | | |
| 3 | 3 | 20 | 13 | 8 | 21 | 3 | 9 | 1455.8988 | | 0.6.5012E-04 | 0.6.5012E-04 | 0 | 6.5011 | 3 | 17 | 4 | 13 | 18 | 4 | 14 | 1458.7162 | 0.9406E-03 | 0.9406E-03 | | |
| 3 | 3 | 20 | 13 | 7 | 21 | 13 | 8 | 1455.8988 | | 0.6.5011 | 0.3808E-01 | 0 | 6.3808E-01 | 3 | 18 | 7 | 11 | 19 | 19 | 2 | 18 | 1458.8185 | 0.2406E-03 | 0.2406E-03 | |
| 3 | 3 | 19 | 6 | 13 | 20 | 6 | 14 | 1455.8990 | 0.0016 | 0.6.8831E-02 | 0.6.8831E-02 | 0 | 6.0004 | 3 | 17 | 4 | 13 | 18 | 4 | 14 | 1458.7239 | 0.2185E-01 | 0.2185E-01 | | |
| 3 | 3 | 19 | 6 | 14 | 20 | 6 | 15 | 1455.8992 | 0.0016 | 0.6.8831E-02 | 0.6.8831E-02 | 0 | 6.0004 | 3 | 19 | 8 | 11 | 20 | 8 | 12 | 1458.7334 | -0.0008 | 0.2185E-01 | | |
| 3 | 3 | 15 | 8 | 7 | 14 | 7 | 8 | 1455.9222 | -0.0011 | 0.2882E-01 | 0.2882E-01 | 0 | 6.0011 | 3 | 19 | 13 | 6 | 20 | 13 | 7 | 1458.7823 | 0.5847E-04 | 0.5847E-04 | | |
| 3 | 3 | 15 | 8 | 8 | 14 | 7 | 7 | 1455.9272 | -0.0011 | 0.2882E-01 | 0.2882E-01 | 0 | 6.0010 | 3 | 19 | 16 | 19 | 19 | 2 | 18 | 1458.8185 | 0.2406E-03 | 0.2406E-03 | | |
| 3 | 3 | 18 | 6 | 18 | 19 | 6 | 19 | 1455.9933 | -0.0010 | 0.3808E-01 | 0.3808E-01 | 0 | 6.0010 | 3 | 18 | 12 | 7 | 19 | 12 | 8 | 1459.6187 | 0.5789E-04 | 0.5789E-04 | | |
| 3 | 3 | 18 | 3 | 16 | 19 | 3 | 17 | 1456.0438 | 0.0004 | 0.7232E-01 | 0.7232E-01 | 0 | 6.1336E+00 | 3 | 18 | 6 | 16 | 17 | 14 | 15 | 1459.6187 | 0.4713E-02 | 0.4713E-02 | | |
| 3 | 3 | 17 | 6 | 11 | 18 | 3 | 16 | 1456.0958 | 0.0001 | 0.3380E-02 | 0.3380E-02 | 0 | 6.1802E-02 | 3 | 18 | 7 | 12 | 19 | 7 | 13 | 1459.6784 | -0.0100* | 0.1388E-01 | | |
| 3 | 3 | 18 | 4 | 14 | 19 | 4 | 15 | 1456.4551 | -0.0010 | 0.1862E-01 | 0.1862E-01 | 0 | 6.1862E-01 | 3 | 18 | 7 | 11 | 19 | 7 | 12 | 1459.2133 | -0.0100* | 0.1388E-01 | | |
| 3 | 3 | 18 | 4 | 15 | 19 | 4 | 16 | 1456.4551 | -0.0010 | 0.1862E-02 | 0.1862E-02 | 0 | 6.1284E-02 | 3 | 18 | 10 | 19 | 28 | 9 | 20 | 1459.2238 | 0.1424E-03 | 0.1424E-03 | | |
| 3 | 3 | 25 | 10 | 15 | 26 | 10 | 16 | 1456.5492 | -0.0241* | 0.1249E-02 | 0.1249E-02 | 0 | 6.1145E-01 | 3 | 21 | 4 | 17 | 20 | 1 | 20 | 1459.5460 | 0.4483E-01 | 0.4483E-01 | | |
| 3 | 3 | 20 | 8 | 13 | 21 | 8 | 14 | 1456.8470 | -0.0241* | 0.1145E-01 | 0.1145E-01 | 0 | 6.0004 | 3 | 18 | 2 | 14 | 17 | 2 | 15 | 1459.5460 | 0.2381E-03 | 0.2381E-03 | | |
| 3 | 3 | 20 | 8 | 12 | 21 | 8 | 13 | 1456.8470 | -0.0241* | 0.1063E-03 | 0.1063E-03 | 0 | 6.0004 | 3 | 18 | 1 | 15 | 17 | 1 | 16 | 1459.7174 | 0.4134E-01 | 0.4134E-01 | | |
| 3 | 3 | 27 | 7 | 21 | 28 | 6 | 21 | 1456.7173 | -0.0006 | 0.1249E-02 | 0.1249E-02 | 0 | 6.1457 | 3 | 17 | 5 | 12 | 18 | 5 | 13 | 1459.4340 | -0.0005 | 0.1388E-01 | | |
| 3 | 3 | 27 | 7 | 20 | 28 | 6 | 21 | 1456.7177 | -0.0006 | 0.1249E-02 | 0.1249E-02 | 0 | 6.1457 | 3 | 17 | 5 | 13 | 18 | 6 | 14 | 1459.4342 | 0.1424E-03 | 0.1424E-03 | | |
| 3 | 3 | 19 | 7 | 13 | 26 | 7 | 14 | 1457.0480 | -0.0241* | 0.1145E-01 | 0.1145E-01 | 0 | 6.0004 | 3 | 18 | 2 | 14 | 17 | 2 | 15 | 1459.5460 | 0.2381E-03 | 0.2381E-03 | | |
| 3 | 3 | 19 | 7 | 12 | 26 | 7 | 13 | 1457.0480 | -0.0241* | 0.1145E-01 | 0.1145E-01 | 0 | 6.0004 | 3 | 18 | 1 | 15 | 17 | 1 | 16 | 1459.7174 | 0.4134E-01 | 0.4134E-01 | | |
| 3 | 3 | 24 | 1 | 24 | 24 | 1 | 23 | 1457.1766 | -0.0006 | 0.3837E-01 | 0.3837E-01 | 0 | 6.1336E-03 | 3 | 23 | 10 | 14 | 24 | 10 | 15 | 1459.7919 | 0.1388E-03 | 0.1388E-03 | | |
| 3 | 3 | 18 | 5 | 13 | 19 | 5 | 14 | 1457.1919 | -0.0006 | 0.3837E-01 | 0.3837E-01 | 0 | 6.0004 | 3 | 23 | 10 | 13 | 24 | 10 | 14 | 1459.7919 | 0.2034E-03 | 0.2034E-03 | | |
| 3 | 3 | 17 | 6 | 11 | 18 | 11 | 17 | 1457.3180 | -0.0006 | 0.3837E-01 | 0.3837E-01 | 0 | 6.0004 | 3 | 27 | 10 | 18 | 27 | 9 | 19 | 1459.9666 | 0.1877E-03 | 0.1877E-03 | | |
| 3 | 3 | 20 | 8 | 20 | 20 | 2 | 19 | 1457.3318 | -0.0006 | 0.2087E-03 | 0.2087E-03 | 0 | 6.0004 | 3 | 17 | 8 | 10 | 16 | 7 | 9 | 1459.1857 | -0.0010 | 0.3873E-03 | | |
| 3 | 3 | 21 | 9 | 13 | 22 | 9 | 14 | 1457.4193 | -0.0006 | 0.2210E-02 | 0.2210E-02 | 0 | 6.2196E-01 | 3 | 18 | 9 | 18 | 18 | 2 | 17 | 1460.1949 | 0.2196E-01 | 0.2196E-01 | | |
| 3 | 3 | 17 | 2 | 15 | 18 | 2 | 16 | 1457.4197 | 0.0002 | 0.3545E-01 | 0.3545E-01 | 0 | 6.1833E+00 | 3 | 17 | 6 | 12 | 18 | 6 | 13 | 1460.3037 | 0.9388E-02 | 0.9388E-02 | | |
| 3 | 3 | 17 | 1 | 18 | 18 | 1 | 17 | 1457.4761 | 0.0003 | 0.7887E-04 | 0.7887E-04 | 0 | 6.0004 | 3 | 17 | 6 | 11 | 18 | 6 | 12 | 1460.3037 | 0.9388E-02 | 0.9388E-02 | | |
| 3 | 3 | 30 | 10 | 21 | 30 | 9 | 22 | 1457.7205 | -0.0009 | 0.7887E-04 | 0.7887E-04 | 0 | 6.5106E-03 | 3 | 18 | 2 | 15 | 17 | 2 | 16 | 1460.3629 | 0.4245E-01 | 0.4245E-01 | | |
| 3 | 3 | 30 | 16 | 20 | 30 | 9 | 21 | 1457.7205 | -0.0009 | 0.7887E-04 | 0.7887E-04 | 0 | 6.5106E-03 | 3 | 18 | 6 | 16 | 17 | 6 | 17 | 1460.4377 | 0.9987E-01 | 0.9987E-01 | | |
| 3 | 3 | 19 | 10 | 10 | 20 | 7 | 13 | 1458.0409 | -0.0009 | 0.2531E-01 | 0.2531E-01 | 0 | 6.8074E-02 | 3 | 18 | 6 | 16 | 17 | 3 | 15 | 1460.5057 | -0.0004 | 0.5145E-01 | | |
| 3 | 3 | 18 | 8 | 8 | 15 | 7 | 9 | 1458.0653 | -0.0009 | 0.2531E-01 | 0.2531E-01 | 0 | 6.8074E-02 | 3 | 18 | 6 | 16 | 17 | 3 | 15 | 1460.5793 | 0.9733E-01 | 0.9733E-01 | | |
| 3 | 3 | 18 | 8 | 9 | 15 | 7 | 8 | 1458.0653 | -0.0009 | 0.2531E-01 | 0.2531E-01 | 0 | 6.8074E-02 | 3 | 26 | 10 | 17 | 28 | 9 | 18 | 1460.6888 | 0.2439E-03 | 0.2439E-03 | | |
| 3 | 3 | 18 | 6 | 12 | 19 | 6 | 13 | 1458.0959 | 0.0015 | 0.5106E-03 | 0.5106E-03 | 0 | 6.8074E-02 | 3 | 18 | 10 | 9 | 19 | 7 | 12 | 1460.6870 | 0.1823E-03 | 0.1823E-03 | | |
| 3 | 3 | 18 | 6 | 13 | 19 | 6 | 14 | 1458.0959 | 0.0015 | 0.5106E-03 | 0.5106E-03 | 0 | 6.8074E-02 | 3 | 18 | 11 | 6 | 17 | 11 | 7 | 11 | 1460.6956 | 0.1823E-03 | 0.1823E-03 | |
| 3 | 3 | 17 | 3 | 14 | 18 | 3 | 15 | 1458.1335 | 0.0001 | 0.8638E-01 | 0.8638E-01 | 0 | 6.1616E-03 | 3 | 18 | 11 | 5 | 17 | 11 | 6 | 17 | 1460.6956 | 0.4120E-03 | 0.4120E-03 | |
| 3 | 3 | 24 | 10 | 14 | 25 | 10 | 15 | 1458.1742 | 0.0001 | 0.1616E-03 | 0.1616E-03 | 0 | 6.8074E-02 | 3 | 29 | 7 | 23 | 28 | 6 | 22 | 1460.6974 | 0.6989E-03 | 0.6989E-03 | | |
| 3 | 3 | 16 | 15 | 16 | 16 | 15 | 16 | 1468.1742 | 0.0001 | 0.1616E-03 | 0.1616E-03 | 0 | 6.8074E-02 | 3 | 29 | 7 | 23 | 28 | 6 | 23 | 1468.6980 | 0.6991E-03 | 0.6991E-03 | | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 3 | 16 | 1 | 16 | | 17 | 1 | 17 | 1460.7087 | 0.0000 | 0.1526E+00 | 6 | 22 | 10 | 13 | | 22 | 9 | 14 | 1463.4742 | | 0.5989E-03 |
| 3 | 18 | 8 | 10 | | 19 | 8 | 11 | 1460.7336 | | 0.2503E-02 | 6 | 22 | 10 | 12 | | 22 | 9 | 13 | 1463.4742 | | 0.5989E-03 |
| 3 | 18 | 8 | 11 | | 19 | 8 | 12 | 1460.7336 | | 0.2503E-02 | 3 | 16 | 7 | 10 | | 17 | 7 | 11 | 1463.5503 | -0.0009* | 0.1838E-01 |
| 3 | 18 | 4 | 12 | | 17 | 4 | 13 | 1461.0013 | -0.0003 | 0.2523E-01 | 3 | 16 | 7 | 9 | | 17 | 7 | 10 | 1463.5503 | -0.0009* | 0.1838E-01 |
| 3 | 18 | 4 | 13 | | 17 | 4 | 14 | 1461.0081 | -0.0007 | 0.2523E-01 | 3 | 15 | 0 | 15 | | 15 | 2 | 14 | 1463.5948 | | 0.3449E-03 |
| 3 | 19 | 9 | 11 | | 20 | 9 | 12 | 1461.1384 | | 0.3148E-02 | 3 | 10 | 1 | 9 | | 9 | 3 | 6 | 1463.7788 | | 0.5394E-04 |
| 3 | 19 | 9 | 10 | | 20 | 9 | 11 | 1461.1384 | | 0.3148E-02 | 3 | 15 | 5 | 10 | | 16 | 5 | 11 | 1463.9485 | -0.0001 | 0.5817E-01 |
| 8 | 15 | 8 | 10 | | 16 | 3 | 13 | 1461.2493 | | 0.3480E-02 | 3 | 15 | 5 | 11 | | 16 | 5 | 12 | 1463.9486 | -0.0002 | 0.5817E-01 |
| 3 | 17 | 7 | 11 | | 18 | 7 | 12 | 1461.3777 | -0.0039* | 0.1617E-01 | 3 | 15 | 11 | 5 | | 16 | 11 | 6 | 1464.0909 | | 0.4657E-03 |
| 3 | 17 | 7 | 10 | | 18 | 7 | 11 | 1461.3777 | -0.0039* | 0.1617E-01 | 3 | 15 | 11 | 4 | | 16 | 11 | 5 | 1464.0909 | | 0.4657E-03 |
| 3 | 22 | 10 | 13 | | 23 | 10 | 14 | 1461.4016 | | 0.2519E-03 | 6 | 14 | 6 | 9 | | 15 | 3 | 12 | 1464.1199 | | 0.8534E-02 |
| 3 | 22 | 10 | 12 | | 23 | 10 | 13 | 1461.4016 | | 0.2519E-03 | 6 | 28 | 12 | 17 | | 29 | 11 | 18 | 1464.1287 | | 0.5516E-04 |
| 8 | 25 | 10 | 15 | | 25 | 9 | 18 | 1461.4019 | | 0.3123E-03 | 6 | 28 | 12 | 16 | | 29 | 11 | 19 | 1464.1287 | | 0.5516E-04 |
| 8 | 25 | 10 | 18 | | 25 | 9 | 17 | 1461.4019 | | 0.3123E-03 | 6 | 21 | 10 | 11 | | 21 | 9 | 12 | 1464.1381 | | 0.7205E-03 |
| 3 | 17 | 0 | 17 | | 17 | 2 | 16 | 1461.4539 | | 0.3020E-03 | 6 | 21 | 10 | 12 | | 21 | 9 | 13 | 1464.1381 | | 0.7205E-03 |
| 3 | 18 | 13 | 5 | | 19 | 13 | 6 | 1461.6471 | | 0.8615E-04 | 3 | 14 | 1 | 13 | | 15 | 1 | 14 | 1464.2416 | 0.0001 | 0.1793E+00 |
| 3 | 18 | 13 | 6 | | 19 | 13 | 7 | 1461.6471 | | 0.8615E-04 | 6 | 22 | 4 | 18 | | 21 | 1 | 21 | 1464.3223 | | 0.2179E-03 |
| 3 | 18 | 5 | 11 | | 17 | 5 | 12 | 1461.6862 | -0.0002 | 0.5152E-01 | 3 | 14 | 2 | 12 | | 15 | 2 | 13 | 1464.3883 | | 0.5354E-01 |
| 3 | 18 | 5 | 12 | | 17 | 5 | 13 | 1461.6864 | -0.0003 | 0.5152E-01 | 6 | 19 | 8 | 12 | | 18 | 7 | 11 | 1464.3746 | | 0.1592E-01 |
| 8 | 15 | 6 | 9 | | 16 | 3 | 14 | 1461.7950 | | 0.7280E-02 | 6 | 19 | 8 | 11 | | 18 | 7 | 12 | 1464.3746 | | 0.1592E-01 |
| 3 | 15 | 1 | 14 | | 16 | 1 | 15 | 1461.9724 | 0.0002 | 0.1585E+00 | 3 | 14 | 6 | 14 | | 14 | 2 | 13 | 1464.4702 | | 0.3534E-03 |
| 3 | 15 | 2 | 13 | | 16 | 2 | 14 | 1462.0338 | 0.0002 | 0.4744E-01 | 6 | 14 | 6 | 8 | | 15 | 3 | 13 | 1464.4875 | | 0.1376E-01 |
| 3 | 17 | 12 | 5 | | 18 | 12 | 6 | 1462.0388 | | 0.6580E-04 | 3 | 17 | 13 | 6 | | 18 | 13 | 6 | 1464.4924 | | 0.7203E-04 |
| 3 | 17 | 12 | 6 | | 18 | 12 | 7 | 1462.0388 | | 0.6580E-04 | 3 | 17 | 13 | 4 | | 18 | 13 | 5 | 1464.4924 | | 0.7203E-04 |
| 6 | 24 | 10 | 14 | | 24 | 9 | 15 | 1462.1053 | | 0.3941E-03 | 3 | 20 | 10 | 11 | | 21 | 10 | 12 | 1464.5944 | | 0.3670E-03 |
| 6 | 24 | 10 | 15 | | 24 | 9 | 16 | 1462.1053 | | 0.3941E-03 | 3 | 20 | 10 | 10 | | 21 | 10 | 11 | 1464.5944 | | 0.3670E-03 |
| 6 | 18 | 8 | 10 | | 17 | 7 | 11 | 1462.2888 | -0.0008 | 0.1882E-01 | 3 | 15 | 6 | 18 | | 16 | 6 | 11 | 1464.7534 | 0.0011 | 0.1202E-01 |
| 6 | 18 | 8 | 11 | | 17 | 7 | 10 | 1462.2888 | -0.0008 | 0.1882E-01 | 3 | 15 | 6 | 9 | | 16 | 6 | 10 | 1464.7534 | 0.0011 | 0.1202E-01 |
| 3 | 16 | 6 | 10 | | 17 | 6 | 11 | 1462.5228 | 0.0012 | 0.1072E-01 | 6 | 20 | 10 | 10 | | 20 | 9 | 11 | 1464.7874 | | 0.6517E-03 |
| 3 | 16 | 6 | 11 | | 17 | 6 | 12 | 1462.5228 | 0.0012 | 0.1072E-01 | 6 | 20 | 10 | 11 | | 20 | 9 | 12 | 1464.7874 | | 0.8517E-03 |
| 3 | 16 | 0 | 16 | | 16 | 2 | 15 | 1462.5885 | | 0.3270E-03 | 3 | 16 | 8 | 9 | | 17 | 8 | 10 | 1464.8785 | -0.0066R | 0.3219E-02 |
| 3 | 15 | 2 | 14 | | 16 | 2 | 15 | 1462.6366 | 0.0000 | 0.4843E-01 | 3 | 16 | 8 | 8 | | 17 | 8 | 9 | 1464.8785 | -0.0066R | 0.3219E-02 |
| 6 | 30 | 7 | 24 | | 29 | 6 | 23 | 1462.8628 | | 0.5126E-03 | 3 | 17 | 9 | 9 | | 18 | 9 | 10 | 1464.9021 | | 0.4147E-02 |
| 6 | 30 | 7 | 23 | | 29 | 6 | 24 | 1462.8633 | | 0.5129E-03 | 3 | 17 | 9 | 8 | | 18 | 9 | 9 | 1464.9021 | | 0.4147E-02 |
| 3 | 15 | 3 | 12 | | 16 | 3 | 13 | 1462.7513 | 0.0003 | 0.1127E+00 | 3 | 14 | 2 | 13 | | 15 | 2 | 14 | 1464.9281 | -0.0001 | 0.5439E-01 |
| 6 | 23 | 10 | 13 | | 23 | 9 | 14 | 1462.7983 | | 0.4897E-03 | 3 | 16 | 12 | 4 | | 17 | 12 | 5 | 1465.0396 | | 0.7203E-04 |
| 6 | 23 | 10 | 14 | | 23 | 9 | 15 | 1462.7983 | | 0.4897E-03 | 3 | 16 | 12 | 5 | | 17 | 12 | 6 | 1465.0396 | | 0.7203E-04 |
| 3 | 17 | 8 | 9 | | 18 | 8 | 10 | 1462.7983 | -0.0108R | 0.2868E-02 | 3 | 14 | 3 | 11 | | 15 | 3 | 12 | 1465.0759 | 0.0003 | 0.1238E+00 |
| 3 | 17 | 8 | 10 | | 18 | 8 | 11 | 1462.7983 | -0.0108R | 0.2868E-02 | 3 | 14 | 6 | 14 | | 15 | 6 | 15 | 1465.0950 | -0.0003 | 0.6563E-01 |
| 3 | 15 | 0 | 15 | | 16 | 0 | 16 | 1462.8240 | -0.0004 | 0.5854E-01 | 3 | 14 | 3 | 12 | | 15 | 3 | 13 | 1465.1737 | 0.0007 | 0.1167E+00 |
| 3 | 22 | 1 | 22 | | 22 | 1 | 21 | 1462.8278 | | 0.4863E-03 | 3 | 13 | 0 | 13 | | 13 | 2 | 12 | 1465.2150 | | 0.3506E-03 |
| 3 | 15 | 3 | 13 | | 16 | 3 | 14 | 1462.8676 | 0.0005 | 0.1090E+00 | 3 | 14 | 1 | 14 | | 15 | 1 | 15 | 1465.3221 | -0.0002 | 0.1937E+00 |
| 3 | 21 | 10 | 12 | | 22 | 10 | 13 | 1463.0027 | | 0.3088E-03 | 6 | 19 | 10 | 9 | | 19 | 9 | 10 | 1465.4207 | | 0.9882E-03 |
| 3 | 21 | 10 | 11 | | 22 | 10 | 12 | 1463.0027 | | 0.3088E-03 | 6 | 19 | 10 | 10 | | 19 | 9 | 11 | 1465.4207 | | 0.9882E-03 |
| 3 | 18 | 9 | 9 | | 19 | 9 | 10 | 1463.0125 | | 0.3651E-02 | 3 | 14 | 4 | 10 | | 15 | 4 | 11 | 1465.5822 | 0.0008 | 0.3196E-01 |
| 3 | 18 | 9 | 10 | | 19 | 9 | 11 | 1463.0125 | | 0.3651E-02 | 3 | 14 | 4 | 11 | | 15 | 4 | 12 | 1465.5853 | -0.0023 | 0.3196E-01 |
| 3 | 15 | 1 | 15 | | 16 | 1 | 16 | 1463.0153 | -0.0002 | 0.1732E+00 | 3 | 21 | 1 | 21 | | 21 | 1 | 20 | 1465.6385 | | 0.8070E-03 |
| 3 | 15 | 4 | 11 | | 16 | 4 | 12 | 1463.2874 | 0.0010 | 0.2884E-01 | 3 | 16 | 7 | 9 | | 18 | 7 | 10 | 1465.7340 | 0.0006* | 0.2044E-01 |
| 3 | 15 | 4 | 12 | | 16 | 4 | 13 | 1463.2921 | -0.0037 | 0.2884E-01 | 3 | 15 | 7 | 8 | | 18 | 7 | 9 | 1465.7340 | 0.0006* | 0.2044E-01 |
| 4 | 17 | 10 | 8 | | 18 | 7 | 12 | 1463.3317 | | 0.7918E-04 | 6 | 27 | 12 | 15 | | 28 | 11 | 18 | 1465.7793 | | 0.7242E-04 |
| 4 | 17 | 10 | 7 | | 18 | 7 | 11 | 1463.3317 | | 0.7918E-04 | 6 | 27 | 12 | 16 | | 28 | 11 | 17 | 1465.7793 | | 0.7242E-04 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|------------|------------|----------|
| 3 | 12 | 0 | 12 | 12 | 2 | 11 | | 1465.8326 | | 0.3358E-03 | 3 | 14 | 7 | 7 | 15 | 7 | 8 | 1467.9304 | 0.0013* | 0.2221E-01 | |
| 6 | 18 | 10 | 8 | 18 | 9 | 9 | | 1466.0374 | | 0.1124E-02 | 3 | 15 | 12 | 3 | 16 | 12 | 4 | 1468.0198 | | 0.7504E-04 | |
| 6 | 18 | 10 | 9 | 18 | 9 | 10 | | 1466.0374 | | 0.1124E-02 | 3 | 15 | 12 | 4 | 16 | 12 | 5 | 1468.0198 | | 0.7504E-04 | |
| 3 | 19 | 10 | 10 | 20 | 10 | 11 | | 1466.1753 | | 0.4308E-03 | 6 | 14 | 10 | 5 | 14 | 9 | 6 | 1468.3110 | | 0.1444E-02 | |
| 3 | 19 | 10 | 9 | 20 | 10 | 10 | | 1466.1753 | | 0.4308E-03 | 6 | 14 | 10 | 4 | 14 | 9 | 5 | 1468.3110 | | 0.1444E-02 | |
| 3 | 14 | 5 | 10 | 15 | 5 | 11 | | 1466.2209 | -0.0001 | 0.6448E-01 | 3 | 20 | 1 | 20 | 20 | 1 | 19 | 1468.4207 | | 0.7534E-03 | |
| 3 | 14 | 5 | 9 | 15 | 5 | 10 | | 1466.2209 | 0.0000 | 0.6448E-01 | 6 | 21 | 8 | 14 | 20 | 7 | 13 | 1468.4948 | 0.0008 | 0.1097E-01 | |
| 3 | 11 | 0 | 11 | 11 | 2 | 10 | | 1466.3295 | | 0.3095E-03 | 6 | 21 | 8 | 13 | 20 | 7 | 14 | 1468.4948 | 0.0008 | 0.1097E-01 | |
| 6 | 20 | 8 | 13 | 19 | 7 | 12 | | 1466.4432 | -0.0002 | 0.1330E-01 | 3 | 13 | 5 | 9 | 14 | 5 | 10 | 1468.5033 | 0.0000 | 0.7006E-01 | |
| 6 | 20 | 8 | 12 | 19 | 7 | 13 | | 1466.4432 | -0.0002 | 0.1330E-01 | 3 | 13 | 5 | 8 | 14 | 5 | 9 | 1468.5033 | 0.0000 | 0.7006E-01 | |
| 3 | 13 | 1 | 12 | 14 | 1 | 13 | | 1466.5261 | 0.0000 | 0.1994E+00 | 3 | 15 | 9 | 6 | 16 | 9 | 7 | 1468.7273 | | 0.4977E-02 | |
| 6 | 17 | 10 | 8 | 17 | 9 | 9 | | 1466.6360 | | 0.1249E-02 | 3 | 15 | 9 | 7 | 16 | 9 | 8 | 1468.7273 | | 0.4977E-02 | |
| 6 | 17 | 10 | 7 | 17 | 9 | 8 | | 1466.6360 | | 0.1249E-02 | 6 | 13 | 10 | 3 | 13 | 9 | 4 | 1468.8242 | | 0.1394E-02 | |
| 3 | 10 | 0 | 10 | 10 | 2 | 9 | | 1466.7153 | | 0.2734E-03 | 6 | 13 | 10 | 4 | 13 | 9 | 5 | 1468.8242 | | 0.1394E-02 | |
| 3 | 13 | 2 | 11 | 14 | 2 | 12 | | 1466.7197 | 0.0000 | 0.5938E-01 | 3 | 12 | 1 | 11 | 13 | 1 | 12 | 1468.8264 | 0.0000 | 0.2181E+00 | |
| 3 | 16 | 9 | 8 | 17 | 9 | 9 | | 1466.8065 | | 0.4604E-02 | 6 | 25 | 12 | 14 | 26 | 11 | 15 | 1469.0605 | | 0.1187E-03 | |
| 3 | 16 | 9 | 7 | 17 | 9 | 8 | | 1466.8065 | | 0.4604E-02 | 6 | 25 | 12 | 13 | 26 | 11 | 16 | 1469.0605 | | 0.1187E-03 | |
| 8 | 13 | 6 | 8 | 14 | 3 | 11 | | 1466.9130 | | 0.1774E-01 | 3 | 12 | 2 | 10 | 13 | 2 | 11 | 1469.0861 | -0.0001 | 0.6467E-01 | |
| 3 | 15 | 8 | 7 | 18 | 8 | 8 | | 1466.9746 | -0.0036 | 0.3533E-02 | 3 | 14 | 8 | 6 | 15 | 8 | 7 | 1469.0873 | | 0.3778E-02 | |
| 3 | 15 | 8 | 8 | 18 | 8 | 9 | | 1466.9746 | -0.0036 | 0.3533E-02 | 3 | 14 | 8 | 7 | 15 | 8 | 8 | 1469.0873 | | 0.3778E-02 | |
| 3 | 14 | 8 | 9 | 15 | 6 | 10 | | 1466.9955 | 0.0010 | 0.1321E-01 | 3 | 13 | 6 | 8 | 14 | 6 | 9 | 1469.2494 | 0.0008 | 0.1419E-01 | |
| 3 | 14 | 8 | 8 | 15 | 6 | 9 | | 1466.9955 | 0.0010 | 0.1321E-01 | 3 | 13 | 6 | 7 | 14 | 6 | 8 | 1469.2494 | 0.0008 | 0.1419E-01 | |
| 3 | 9 | 0 | 9 | 9 | 2 | 8 | | 1467.0022 | | 0.2304E-03 | 3 | 28 | 2 | 27 | 28 | 2 | 26 | 1469.2829 | | 0.5184E-04 | |
| 3 | 11 | 1 | 10 | 10 | 3 | 7 | | 1467.0187 | | 0.7205E-04 | 6 | 23 | 4 | 19 | 22 | 1 | 22 | 1469.2784 | | 0.1945E-03 | |
| 6 | 13 | 6 | 7 | 14 | 3 | 12 | | 1467.1366 | | 0.3886E-01 | 3 | 17 | 10 | 7 | 18 | 10 | 8 | 1469.2992 | | 0.5587E-03 | |
| 3 | 8 | 0 | 8 | 8 | 2 | 7 | | 1467.2042 | | 0.1842E-03 | 3 | 17 | 10 | 8 | 18 | 10 | 9 | 1469.2992 | | 0.5587E-03 | |
| 8 | 18 | 10 | 7 | 18 | 9 | 8 | | 1467.2155 | | 0.1354E-02 | 6 | 12 | 10 | 3 | 12 | 9 | 4 | 1469.3121 | | 0.1251E-02 | |
| 6 | 18 | 10 | 6 | 16 | 9 | 7 | | 1467.2155 | | 0.1354E-02 | 6 | 12 | 10 | 2 | 12 | 9 | 3 | 1469.3121 | | 0.1251E-02 | |
| 3 | 13 | 2 | 12 | 14 | 2 | 13 | | 1467.2278 | 0.0000 | 0.6007E-01 | 3 | 12 | 2 | 11 | 13 | 2 | 12 | 1469.5361 | 0.0000 | 0.6520E-01 | |
| 3 | 16 | 13 | 4 | 17 | 13 | 5 | | 1467.3177 | | 0.7458E-04 | 3 | 12 | 3 | 9 | 13 | 3 | 10 | 1469.5782 | -0.0010 | 0.8784E-01 | |
| 3 | 16 | 13 | 3 | 17 | 13 | 4 | | 1467.3177 | | 0.7458E-04 | 3 | 12 | 0 | 12 | 13 | 0 | 13 | 1469.6367 | 0.0000 | 0.7871E-01 | |
| 3 | 7 | 0 | 7 | 7 | 2 | 6 | | 1467.3384 | | 0.1384E-03 | 3 | 12 | 3 | 10 | 13 | 3 | 11 | 1469.6809 | -0.0011 | 0.1192E+00 | |
| 3 | 13 | 0 | 13 | 14 | 0 | 14 | | 1467.3652 | -0.0002 | 0.7245E-01 | 8 | 10 | 9 | 1 | 9 | 8 | 2 | 1469.7112 | | 0.9732E-02 | |
| 3 | 8 | 0 | 6 | 6 | 2 | 5 | | 1467.4139 | | 0.9863E-04 | 6 | 10 | 9 | 2 | 9 | 8 | 1 | 1469.7112 | | 0.9732E-02 | |
| 3 | 13 | 3 | 10 | 14 | 3 | 11 | | 1467.4191 | 0.0007 | 0.1259E+00 | 6 | 11 | 10 | 2 | 11 | 9 | 3 | 1469.7729 | | 0.9911E-03 | |
| 6 | 26 | 12 | 14 | 27 | 11 | 17 | | 1467.4233 | | 0.9353E-04 | 6 | 11 | 10 | 1 | 11 | 9 | 2 | 1469.7729 | | 0.9911E-03 | |
| 6 | 26 | 12 | 15 | 27 | 11 | 16 | | 1467.4233 | | 0.9353E-04 | 6 | 12 | 6 | 7 | 13 | 3 | 10 | 1469.8401 | | 0.6746E-01 | |
| 3 | 5 | 0 | 5 | 5 | 2 | 4 | | 1467.4512 | | 0.6134E-04 | 3 | 12 | 1 | 12 | 13 | 1 | 13 | 1469.9391 | -0.0001 | 0.2309E+00 | |
| 3 | 14 | 11 | 3 | 15 | 11 | 4 | | 1467.5106 | | 0.5059E-03 | 6 | 12 | 6 | 6 | 13 | 3 | 11 | 1469.9695 | | 0.3614E-01 | |
| 3 | 14 | 11 | 4 | 15 | 11 | 5 | | 1467.5106 | | 0.5059E-03 | 3 | 15 | 13 | 2 | 16 | 13 | 3 | 1470.1226 | | 0.7171E-04 | |
| 3 | 13 | 3 | 11 | 14 | 3 | 12 | | 1467.5142 | 0.0009 | 0.1048E+00 | 3 | 15 | 13 | 3 | 16 | 13 | 4 | 1470.1226 | | 0.7171E-04 | |
| 6 | 9 | 9 | 1 | 8 | 8 | 0 | | 1467.5348 | | 0.1032E-01 | 3 | 13 | 7 | 7 | 14 | 7 | 8 | 1470.1403 | 0.0013* | 0.2352E-01 | |
| 6 | 9 | 9 | 0 | 8 | 8 | 1 | | 1467.5348 | | 0.1032E-01 | 3 | 13 | 7 | 6 | 14 | 7 | 7 | 1470.1403 | 0.0013* | 0.2352E-01 | |
| 3 | 13 | 1 | 13 | 14 | 1 | 14 | | 1467.6299 | -0.0002 | 0.2132E+00 | 3 | 12 | 4 | 8 | 13 | 4 | 9 | 1470.1403 | 0.0003 | 0.3758E-01 | |
| 3 | 18 | 10 | 9 | 19 | 10 | 10 | | 1467.7443 | | 0.4953E-03 | 3 | 12 | 4 | 9 | 13 | 4 | 10 | 1470.1992 | -0.0010 | 0.3758E-01 | |
| 3 | 18 | 10 | 8 | 19 | 10 | 9 | | 1467.7443 | | 0.4953E-03 | 6 | 10 | 10 | 1 | 10 | 9 | 2 | 1470.2050 | | 0.5854E-03 | |
| 6 | 15 | 10 | 5 | 15 | 9 | 6 | | 1467.7742 | | 0.1425E-02 | 6 | 10 | 10 | 0 | 10 | 9 | 1 | 1470.2050 | | 0.5854E-03 | |
| 6 | 15 | 10 | 6 | 15 | 9 | 7 | | 1467.7742 | | 0.1425E-02 | 3 | 12 | 1 | 11 | 11 | 3 | 8 | 1470.2766 | | 0.9172E-04 | |
| 3 | 13 | 4 | 9 | 14 | 4 | 10 | | 1467.8856 | 0.0006 | 0.3500E-01 | 6 | 22 | 8 | 14 | 21 | 7 | 15 | 1470.5291 | 0.0012 | 0.8938E-02 | |
| 3 | 13 | 4 | 10 | 14 | 4 | 11 | | 1467.8877 | -0.0014 | 0.3500E-01 | 6 | 22 | 8 | 15 | 21 | 7 | 14 | 1470.5291 | 0.0012 | 0.8938E-02 | |
| 3 | 14 | 7 | 8 | 15 | 7 | 9 | | 1467.9304 | 0.0013* | 0.2221E-01 | 3 | 14 | 9 | 6 | 15 | 9 | 7 | 1470.6661 | 0.5217E-02 | | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 3 | 14 | 9 | 5 | 15 | 9 | 6 | | 1470.6661 | | 0.5217E-02 | 3 | 14 | 10 | 5 | 15 | 10 | 6 | 1473.8484 | | 0.6639E-03 | |
| 6 | 24 | 12 | 12 | 25 | 11 | 15 | | 1470.6906 | | 0.1480E-03 | 3 | 14 | 10 | 4 | 15 | 10 | 5 | 1473.8484 | | 0.6639E-03 | |
| 6 | 24 | 12 | 13 | 25 | 11 | 14 | | 1470.6906 | | 0.1480E-03 | 3 | 10 | 2 | 8 | 11 | 2 | 9 | 1473.8555 | | 0.7231E-01 | |
| 3 | 12 | 5 | 7 | 13 | 5 | 8 | | 1470.7959 | 0.0000 | 0.7446E-01 | 3 | 13 | 12 | 2 | 14 | 12 | 3 | 1473.9124 | | 0.6201E-04 | |
| 3 | 12 | 5 | 8 | 13 | 5 | 9 | | 1470.7959 | 0.0000 | 0.7446E-01 | 3 | 13 | 12 | 1 | 14 | 12 | 2 | 1473.9124 | | 0.6201E-04 | |
| 3 | 16 | 10 | 8 | 17 | 10 | 7 | | 1470.8378 | | 0.6098E-03 | 6 | 22 | 12 | 11 | 23 | 11 | 12 | 1473.9268 | | 0.2167E-03 | |
| 3 | 16 | 10 | 7 | 17 | 10 | 8 | | 1470.8378 | | 0.6098E-03 | 6 | 22 | 12 | 10 | 23 | 11 | 13 | 1473.9268 | | 0.2167E-03 | |
| 3 | 13 | 11 | 3 | 14 | 11 | 4 | | 1470.9834 | | 0.5178E-03 | 6 | 12 | 9 | 4 | 11 | 8 | 3 | 1473.9951 | | 0.8402E-02 | |
| 3 | 13 | 11 | 2 | 14 | 11 | 3 | | 1470.9834 | | 0.5178E-03 | 6 | 12 | 9 | 3 | 11 | 8 | 4 | 1473.9951 | | 0.8402E-02 | |
| 3 | 14 | 12 | 3 | 15 | 12 | 4 | | 1470.9779 | | 0.7285E-04 | 3 | 10 | 2 | 9 | 11 | 2 | 10 | 1474.1799 | 0.0000 | 0.7258E-01 | |
| 3 | 14 | 12 | 2 | 15 | 12 | 3 | | 1470.9779 | | 0.7285E-04 | 3 | 10 | 0 | 10 | 11 | 0 | 11 | 1474.1937 | 0.0001 | 0.8816E-01 | |
| 3 | 11 | 1 | 10 | 12 | 1 | 11 | | 1471.1429 | -0.0001 | 0.2342E+00 | 3 | 10 | 3 | 7 | 11 | 3 | 8 | 1474.3754 | -0.0005 | 0.1691E+00 | |
| 3 | 19 | 1 | 19 | 19 | 1 | 18 | | 1471.1580 | | 0.9307E-03 | 3 | 10 | 3 | 8 | 11 | 3 | 9 | 1474.3954 | -0.0003 | 0.1693E+00 | |
| 3 | 13 | 8 | 5 | 14 | 8 | 6 | | 1471.2173 | -0.0004 | 0.3919E-02 | 6 | 24 | 4 | 20 | 23 | 1 | 23 | 1474.4158 | | 0.1696E-03 | |
| 3 | 13 | 8 | 6 | 14 | 8 | 7 | | 1471.2173 | -0.0004 | 0.3919E-02 | 3 | 12 | 11 | 2 | 13 | 11 | 3 | 1474.4636 | | 0.4757E-03 | |
| 3 | 11 | 2 | 9 | 12 | 2 | 10 | | 1471.4656 | -0.0001 | 0.8909E-01 | 3 | 12 | 11 | 1 | 13 | 11 | 2 | 1474.4636 | | 0.4757E-03 | |
| 3 | 12 | 6 | 7 | 13 | 6 | 8 | | 1471.5150 | 0.0007 | 0.1488E-01 | 6 | 24 | 8 | 16 | 23 | 7 | 17 | 1474.5475 | | 0.5707E-02 | |
| 3 | 12 | 6 | 8 | 13 | 6 | 7 | | 1471.5150 | 0.0007 | 0.1488E-01 | 6 | 24 | 8 | 17 | 23 | 7 | 18 | 1474.5475 | | 0.5707E-02 | |
| 3 | 11 | 2 | 10 | 12 | 2 | 11 | | 1471.8534 | 0.0002 | 0.8948E-01 | 3 | 10 | 1 | 10 | 11 | 1 | 11 | 1474.5636 | 0.0000 | 0.2566E+00 | |
| 6 | 11 | 9 | 2 | 10 | 8 | 3 | | 1471.8645 | | 0.9089E-02 | 3 | 11 | 7 | 4 | 12 | 7 | 5 | 1474.8022 | 0.0013* | 0.2394E-01 | |
| 6 | 11 | 9 | 3 | 10 | 8 | 2 | | 1471.8645 | | 0.9089E-02 | 3 | 11 | 7 | 5 | 12 | 7 | 6 | 1474.8022 | 0.0013* | 0.2394E-01 | |
| 3 | 11 | 0 | 11 | 12 | 0 | 12 | | 1471.9120 | 0.0000 | 0.8405E-01 | 3 | 12 | 9 | 3 | 13 | 9 | 4 | 1474.8042 | | 0.5051E-02 | |
| 3 | 11 | 3 | 8 | 12 | 3 | 9 | | 1472.0109 | -0.0005 | 0.1580E+00 | 3 | 12 | 8 | 4 | 13 | 9 | 5 | 1474.8042 | | 0.5051E-02 | |
| 3 | 11 | 3 | 9 | 12 | 3 | 10 | | 1472.0432 | -0.0005 | 0.1584E+00 | 3 | 10 | 4 | 6 | 11 | 4 | 7 | 1474.8488 | 0.0000 | 0.4046E-01 | |
| 3 | 27 | 2 | 28 | 27 | 2 | 25 | | 1472.1089 | | 0.8993E-04 | 3 | 10 | 4 | 7 | 11 | 4 | 8 | 1474.8492 | -0.0004 | 0.4046E-01 | |
| 3 | 11 | 1 | 11 | 12 | 1 | 12 | | 1472.2502 | -0.0001 | 0.2457E+00 | 3 | 26 | 2 | 25 | 26 | 2 | 24 | 1474.8674 | | 0.9437E-04 | |
| 6 | 23 | 12 | 12 | 24 | 11 | 13 | | 1472.3129 | | 0.1809E-03 | 6 | 10 | 6 | 5 | 11 | 3 | 8 | 1475.0950 | | 0.1696E-02 | |
| 6 | 23 | 12 | 11 | 24 | 11 | 14 | | 1472.3129 | | 0.1809E-03 | 6 | 10 | 6 | 4 | 11 | 3 | 9 | 1475.1594 | | 0.1509E-02 | |
| 3 | 15 | 10 | 5 | 16 | 10 | 6 | | 1472.3557 | | 0.6481E-03 | 3 | 13 | 10 | 4 | 14 | 10 | 5 | 1475.3083 | | 0.8480E-03 | |
| 3 | 15 | 10 | 6 | 16 | 10 | 7 | | 1472.3557 | | 0.6481E-03 | 3 | 13 | 10 | 3 | 14 | 10 | 4 | 1475.3083 | | 0.8480E-03 | |
| 3 | 12 | 7 | 5 | 13 | 7 | 8 | | 1472.3840 | 0.0012* | 0.2417E-01 | 3 | 10 | 5 | 5 | 11 | 5 | 6 | 1475.4117 | -0.0001 | 0.7775E-01 | |
| 3 | 12 | 7 | 6 | 13 | 7 | 7 | | 1472.3840 | 0.0012* | 0.2417E-01 | 3 | 10 | 5 | 6 | 11 | 5 | 7 | 1475.4117 | -0.0001 | 0.7775E-01 | |
| 6 | 11 | 8 | 8 | 12 | 3 | 9 | | 1472.4512 | | 0.8624E-02 | 6 | 21 | 12 | 10 | 22 | 11 | 11 | 1475.5315 | | 0.2538E-03 | |
| 3 | 11 | 4 | 7 | 12 | 4 | 8 | | 1472.5189 | 0.0001 | 0.3948E-01 | 6 | 21 | 12 | 9 | 22 | 11 | 12 | 1475.5315 | | 0.2538E-03 | |
| 3 | 11 | 4 | 8 | 12 | 4 | 9 | | 1472.5197 | -0.0007 | 0.3948E-01 | 3 | 11 | 8 | 4 | 12 | 8 | 5 | 1475.5319 | 0.0002 | 0.3726E-02 | |
| 6 | 23 | 8 | 15 | 22 | 7 | 18 | | 1472.5468 | | 0.7188E-02 | 3 | 11 | 8 | 3 | 12 | 8 | 4 | 1475.5319 | 0.0002 | 0.3726E-02 | |
| 6 | 23 | 8 | 16 | 22 | 7 | 15 | | 1472.5468 | | 0.7188E-02 | 3 | 9 | 1 | 8 | 10 | 1 | 9 | 1475.8263 | 0.0000 | 0.2544E+00 | |
| 8 | 11 | 6 | 5 | 12 | 3 | 10 | | 1472.5554 | | 0.6317E-02 | 3 | 10 | 6 | 5 | 11 | 6 | 6 | 1476.0823 | 0.0003 | 0.1486E-01 | |
| 3 | 13 | 9 | 4 | 14 | 9 | 5 | | 1472.6245 | | 0.5284E-02 | 3 | 10 | 6 | 4 | 11 | 6 | 5 | 1476.0823 | 0.0003 | 0.1486E-01 | |
| 3 | 13 | 9 | 5 | 14 | 9 | 6 | | 1472.6245 | | 0.5284E-02 | 6 | 13 | 9 | 5 | 12 | 8 | 4 | 1476.1036 | | 0.7679E-02 | |
| 3 | 14 | 13 | 2 | 15 | 13 | 3 | | 1472.9084 | | 0.8073E-04 | 6 | 13 | 9 | 4 | 12 | 8 | 5 | 1476.1036 | | 0.7679E-02 | |
| 3 | 14 | 13 | 1 | 15 | 13 | 2 | | 1472.9084 | | 0.8073E-04 | 3 | 9 | 2 | 7 | 10 | 2 | 8 | 1476.2534 | 0.0000 | 0.7401E-01 | |
| 3 | 11 | 5 | 6 | 12 | 5 | 7 | | 1473.0988 | -0.0001 | 0.7720E-01 | 3 | 17 | 1 | 17 | 17 | 1 | 18 | 1476.4355 | | 0.1402E-02 | |
| 3 | 11 | 5 | 7 | 12 | 5 | 8 | | 1473.0988 | -0.0001 | 0.7720E-01 | 3 | 9 | 0 | 9 | 10 | 0 | 10 | 1476.4845 | 0.0001 | 0.9067E-01 | |
| 3 | 12 | 8 | 4 | 13 | 8 | 5 | | 1473.3654 | 0.0001 | 0.3917E-02 | 3 | 9 | 2 | 8 | 10 | 2 | 9 | 1476.5159 | 0.0001 | 0.7418E-01 | |
| 3 | 12 | 8 | 5 | 13 | 8 | 6 | | 1473.3654 | 0.0001 | 0.3917E-02 | 6 | 25 | 8 | 17 | 24 | 7 | 18 | 1476.5315 | | 0.4474E-02 | |
| 3 | 10 | 1 | 9 | 11 | 1 | 10 | | 1473.4763 | 0.0001 | 0.2468E+00 | 6 | 25 | 8 | 18 | 24 | 7 | 17 | 1476.5315 | | 0.4474E-02 | |
| 3 | 13 | 1 | 12 | 12 | 3 | 9 | | 1473.5315 | | 0.1119E-03 | 3 | 11 | 9 | 3 | 12 | 9 | 4 | 1476.6073 | | 0.4502E-02 | |
| 3 | 11 | 6 | 5 | 12 | 6 | 6 | | 1473.7926 | 0.0004 | 0.1514E-01 | 3 | 11 | 9 | 2 | 12 | 9 | 3 | 1476.6073 | | 0.4502E-02 | |
| 3 | 11 | 6 | 6 | 12 | 6 | 7 | | 1473.7926 | 0.0004 | 0.1514E-01 | 3 | 12 | 10 | 2 | 13 | 10 | 3 | 1476.7236 | | 0.5896E-03 | |
| 3 | 18 | 1 | 18 | 18 | 1 | 17 | | 1473.8348 | | 0.1146E-02 | 3 | 12 | 10 | 3 | 13 | 10 | 4 | 1476.7236 | | 0.5896E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 3 | 9 | 3 | 6 | 10 | 3 | 7 | | 1478.7352 | -0.0002 | 0.1724E+00 | 3 | 8 | 5 | 3 | 9 | 5 | 4 | 1480.0687 | 0.0000 | 0.7005E-01 | |
| 3 | 9 | 3 | 7 | 10 | 3 | 8 | | 1478.7480 | -0.0002 | 0.1725E+00 | 6 | 15 | 9 | 6 | 14 | 8 | 7 | 1480.2556 | | 0.6191E-02 | |
| 3 | 14 | 1 | 13 | 13 | 3 | 10 | | 1478.7685 | | 0.1315E-03 | 6 | 15 | 9 | 7 | 14 | 8 | 6 | 1480.2556 | | 0.6191E-02 | |
| 3 | 10 | 7 | 3 | 11 | 7 | 4 | | 1478.8550 | 0.0006* | 0.2259E-01 | 6 | 18 | 12 | 7 | 19 | 11 | 8 | 1480.2792 | | 0.3454E-03 | |
| 3 | 10 | 7 | 4 | 11 | 7 | 5 | | 1478.8550 | 0.0006* | 0.2259E-01 | 6 | 18 | 12 | 6 | 19 | 11 | 9 | 1480.2792 | | 0.3454E-03 | |
| 3 | 9 | 1 | 9 | 10 | 1 | 10 | | 1478.8798 | 0.0001 | 0.2827E+00 | 6 | 8 | 6 | 3 | 9 | 3 | 6 | 1480.3044 | | 0.1171E-03 | |
| 6 | 20 | 12 | 8 | 21 | 11 | 11 | | 1477.1261 | | 0.2898E-03 | 6 | 8 | 6 | 2 | 9 | 3 | 7 | 1480.3245 | | 0.1149E-03 | |
| 6 | 20 | 12 | 9 | 21 | 11 | 10 | | 1477.1261 | | 0.2898E-03 | 6 | 27 | 8 | 20 | 26 | 7 | 19 | 1480.4500 | | 0.2646E-02 | |
| 3 | 9 | 4 | 5 | 10 | 4 | 6 | | 1477.1875 | -0.0002 | 0.4030E-01 | 6 | 27 | 8 | 19 | 26 | 7 | 20 | 1480.4500 | | 0.2646E-02 | |
| 3 | 9 | 4 | 6 | 10 | 4 | 7 | | 1477.1877 | -0.0004 | 0.4030E-01 | 3 | 7 | 1 | 6 | 8 | 1 | 7 | 1480.5770 | 0.0000 | 0.2522E+00 | |
| 3 | 25 | 2 | 24 | 25 | 2 | 23 | | 1477.5232 | | 0.1289E-03 | 6 | 17 | 5 | 13 | 16 | 2 | 14 | 1480.6695 | | 0.5485E-04 | |
| 6 | 9 | 6 | 4 | 10 | 3 | 7 | | 1477.7137 | | 0.4399E-03 | 3 | 9 | 9 | 0 | 10 | 9 | 1 | 1480.6910 | | 0.2069E-02 | |
| 3 | 10 | 8 | 2 | 11 | 8 | 3 | | 1477.7177 | 0.0000 | 0.3296E-02 | 3 | 9 | 9 | 1 | 10 | 9 | 2 | 1480.6910 | | 0.2069E-02 | |
| 3 | 10 | 8 | 3 | 11 | 8 | 4 | | 1477.7177 | 0.0000 | 0.3296E-02 | 3 | 8 | 6 | 2 | 9 | 6 | 3 | 1480.6981 | -0.0002 | 0.1212E-01 | |
| 3 | 9 | 5 | 4 | 10 | 5 | 5 | | 1477.7351 | -0.0001 | 0.7556E-01 | 3 | 8 | 6 | 3 | 9 | 6 | 4 | 1480.6981 | -0.0002 | 0.1212E-01 | |
| 3 | 9 | 5 | 5 | 10 | 5 | 6 | | 1477.7351 | -0.0001 | 0.7556E-01 | 3 | 7 | 2 | 5 | 8 | 2 | 6 | 1481.0847 | 0.0000 | 0.7169E-01 | |
| 6 | 9 | 6 | 3 | 10 | 3 | 8 | | 1477.7509 | | 0.4196E-03 | 3 | 7 | 0 | 7 | 8 | 0 | 8 | 1481.1030 | 0.0001 | 0.8972E-01 | |
| 3 | 11 | 11 | 0 | 12 | 11 | 1 | | 1478.0363 | | 0.3349E-03 | 3 | 7 | 2 | 8 | 8 | 2 | 7 | 1481.2168 | 0.0000 | 0.7174E-01 | |
| 3 | 11 | 11 | 1 | 12 | 11 | 2 | | 1478.0363 | | 0.3349E-03 | 3 | 15 | 1 | 15 | 15 | 1 | 14 | 1481.3521 | | 0.2085E-02 | |
| 3 | 11 | 10 | 1 | 12 | 10 | 2 | | 1478.0743 | | 0.4759E-03 | 3 | 8 | 7 | 2 | 9 | 7 | 3 | 1481.4058 | -0.0003* | 0.1542E-01 | |
| 3 | 11 | 10 | 2 | 12 | 10 | 3 | | 1478.0743 | | 0.4759E-03 | 3 | 8 | 7 | 1 | 9 | 7 | 2 | 1481.4058 | -0.0003* | 0.1542E-01 | |
| 8 | 14 | 9 | 6 | 13 | 8 | 5 | | 1478.1902 | | 0.6937E-02 | 3 | 7 | 3 | 4 | 8 | 3 | 5 | 1481.4680 | 0.0016 | 0.1816E+00 | |
| 6 | 14 | 9 | 5 | 13 | 8 | 6 | | 1478.1902 | | 0.6937E-02 | 3 | 7 | 3 | 5 | 8 | 3 | 6 | 1481.4725 | -0.0029 | 0.1816E+00 | |
| 3 | 8 | 1 | 7 | 9 | 1 | 8 | | 1478.1932 | 0.0002 | 0.2566E+00 | 3 | 7 | 1 | 7 | 8 | 1 | 8 | 1481.5219 | 0.0000 | 0.2571E+00 | |
| 3 | 9 | 6 | 4 | 10 | 6 | 5 | | 1478.3842 | 0.0001 | 0.1390E-01 | 6 | 17 | 12 | 6 | 18 | 11 | 7 | 1481.8337 | | 0.3584E-03 | |
| 3 | 9 | 6 | 3 | 10 | 6 | 4 | | 1478.3842 | 0.0001 | 0.1390E-01 | 6 | 17 | 12 | 5 | 18 | 11 | 8 | 1481.8337 | | 0.3584E-03 | |
| 6 | 26 | 8 | 18 | 25 | 7 | 19 | | 1478.4990 | | 0.3463E-02 | 3 | 7 | 4 | 4 | 8 | 4 | 5 | 1481.8915 | 0.0000 | 0.3558E-01 | |
| 6 | 26 | 8 | 19 | 25 | 7 | 18 | | 1478.4990 | | 0.3463E-02 | 3 | 7 | 4 | 3 | 8 | 4 | 4 | 1481.8915 | 0.0000 | 0.3558E-01 | |
| 3 | 10 | 9 | 2 | 11 | 9 | 3 | | 1478.6356 | | 0.3637E-02 | 6 | 18 | 5 | 14 | 17 | 2 | 15 | 1481.9174 | | 0.8132E-04 | |
| 3 | 10 | 9 | 1 | 11 | 9 | 2 | | 1478.6356 | | 0.3537E-02 | 3 | 8 | 8 | 0 | 9 | 8 | 1 | 1482.1490 | | 0.1501E-02 | |
| 3 | 8 | 2 | 6 | 9 | 2 | 7 | | 1478.6572 | -0.0001 | 0.7389E-01 | 3 | 8 | 8 | 1 | 9 | 8 | 2 | 1482.1490 | | 0.1501E-02 | |
| 6 | 19 | 12 | 7 | 20 | 11 | 10 | | 1478.7092 | | 0.3217E-03 | 6 | 16 | 9 | 7 | 15 | 8 | 8 | 1482.3003 | | 0.5457E-02 | |
| 6 | 19 | 12 | 8 | 20 | 11 | 9 | | 1478.7092 | | 0.3217E-03 | 6 | 16 | 9 | 8 | 15 | 8 | 7 | 1482.3003 | | 0.5457E-02 | |
| 3 | 8 | 0 | 8 | 9 | 0 | 9 | | 1478.7869 | 0.0000 | 0.9128E-01 | 6 | 28 | 8 | 20 | 27 | 7 | 21 | 1482.3845 | | 0.1996E-02 | |
| 3 | 8 | 2 | 7 | 9 | 2 | 8 | | 1478.8616 | 0.0000 | 0.7399E-01 | 6 | 28 | 8 | 21 | 27 | 7 | 20 | 1482.3845 | | 0.1996E-02 | |
| 3 | 16 | 1 | 16 | 16 | 1 | 15 | | 1478.9458 | | 0.1713E-02 | 3 | 7 | 5 | 2 | 8 | 5 | 3 | 1482.4128 | -0.0001 | 0.6061E-01 | |
| 3 | 8 | 3 | 5 | 9 | 3 | 6 | | 1479.0988 | 0.0001 | 0.1700E+00 | 3 | 7 | 5 | 3 | 8 | 5 | 4 | 1482.4128 | -0.0001 | 0.6061E-01 | |
| 3 | 8 | 3 | 6 | 9 | 3 | 7 | | 1479.1066 | -0.0003 | 0.1700E+00 | 3 | 23 | 2 | 22 | 23 | 2 | 21 | 1482.4751 | | 0.2268E-03 | |
| 3 | 9 | 7 | 2 | 10 | 7 | 3 | | 1479.1228 | 0.0002* | 0.1985E-01 | 3 | 8 | 1 | 5 | 7 | 1 | 8 | 1482.9775 | 0.0001 | 0.2407E+00 | |
| 3 | 9 | 7 | 3 | 10 | 7 | 4 | | 1479.1228 | 0.0002* | 0.1985E-01 | 3 | 7 | 6 | 2 | 8 | 6 | 3 | 1483.0245 | -0.0003 | 0.9357E-02 | |
| 3 | 8 | 1 | 8 | 9 | 1 | 9 | | 1479.1991 | -0.0003 | 0.2631E+00 | 3 | 7 | 8 | 1 | 8 | 6 | 2 | 1483.0245 | -0.0003 | 0.9357E-02 | |
| 3 | 10 | 10 | 0 | 11 | 10 | 1 | | 1479.3230 | | 0.2900E-03 | 6 | 19 | 5 | 15 | 18 | 2 | 18 | 1483.0358 | | 0.6683E-04 | |
| 3 | 10 | 10 | 1 | 11 | 10 | 2 | | 1479.3230 | | 0.2900E-03 | 3 | 18 | 1 | 15 | 15 | 3 | 12 | 1483.0795 | | 0.1630E-03 | |
| 3 | 8 | 4 | 4 | 9 | 4 | 5 | | 1479.5352 | -0.0001 | 0.3875E-01 | 6 | 16 | 12 | 4 | 17 | 11 | 7 | 1483.3699 | | 0.3494E-03 | |
| 3 | 8 | 4 | 5 | 9 | 4 | 6 | | 1479.5352 | -0.0002 | 0.3875E-01 | 6 | 16 | 12 | 5 | 17 | 11 | 6 | 1483.3699 | | 0.3494E-03 | |
| 6 | 25 | 4 | 21 | 24 | 1 | 24 | | 1479.7484 | | 0.1445E-03 | 3 | 8 | 0 | 6 | 7 | 0 | 7 | 1483.4341 | 0.0000 | 0.8582E-01 | |
| 3 | 9 | 8 | 1 | 10 | 8 | 2 | | 1479.9232 | -0.0004 | 0.2575E-02 | 3 | 6 | 2 | 4 | 7 | 2 | 5 | 1483.4746 | 0.0000 | 0.8720E-01 | |
| 3 | 9 | 8 | 2 | 10 | 8 | 3 | | 1479.9232 | -0.0004 | 0.2575E-02 | 3 | 6 | 2 | 5 | 7 | 2 | 6 | 1483.5817 | 0.0000 | 0.8722E-01 | |
| 3 | 15 | 1 | 14 | 14 | 3 | 11 | | 1479.9576 | | 0.1490E-03 | 3 | 14 | 1 | 14 | 14 | 1 | 13 | 1483.6422 | | 0.2533E-02 | |
| 3 | 24 | 2 | 23 | 24 | 2 | 22 | | 1480.0629 | | 0.1700E-03 | 3 | 7 | 7 | 0 | 8 | 7 | 1 | 1483.7042 | -0.0006* | 0.8949E-02 | |
| 3 | 8 | 5 | 4 | 9 | 5 | 5 | | 1480.0687 | 0.0000 | 0.7005E-01 | 3 | 7 | 7 | 1 | 8 | 7 | 2 | 1483.7042 | -0.0006* | 0.8949E-02 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 3 | 6 | 3 | 3 | - | 7 | 3 | 4 | 1483.8438 | | 0.1468E+00 | 3 | 4 | 2 | 2 | - | 5 | 2 | 3 | 1488.2990 | 0.0001 | 0.5065E-01 |
| 3 | 6 | 3 | 4 | - | 7 | 3 | 5 | 1483.8461 | | 0.1468E+00 | 6 | 19 | 9 | 11 | - | 18 | 8 | 10 | 1488.3145 | | 0.3463E-02 |
| 3 | 6 | 1 | 6 | - | 7 | 1 | 7 | 1483.8481 | | 0.2441E+00 | 6 | 19 | 9 | 10 | - | 18 | 8 | 11 | 1488.3145 | | 0.3463E-02 |
| 6 | 20 | 5 | 16 | - | 19 | 2 | 17 | 1484.0542 | | 0.7120E-04 | 3 | 9 | 9 | 9 | - | 8 | 2 | 6 | 1488.3251 | | 0.1084E-03 |
| 3 | 7 | 0 | 7 | - | 8 | 2 | 4 | 1484.1544 | | 0.5885E-04 | 3 | 4 | 2 | 3 | - | 5 | 2 | 4 | 1488.3409 | 0.0000 | 0.5065E-01 |
| 3 | 6 | 4 | 3 | - | 7 | 4 | 4 | 1484.2568 | 0.0000 | 0.3054E-01 | 3 | 4 | 1 | 4 | - | 5 | 1 | 5 | 1488.5123 | 0.0001 | 0.1964E+00 |
| 3 | 6 | 4 | 2 | - | 7 | 4 | 3 | 1484.2568 | 0.0000 | 0.3054E-01 | 3 | 4 | 3 | 1 | - | 5 | 3 | 2 | 1488.6186 | 0.0005 | 0.9476E-01 |
| 6 | 29 | 8 | 22 | - | 28 | 7 | 21 | 1484.3027 | | 0.1487E-02 | 3 | 4 | 3 | 2 | - | 5 | 3 | 3 | 1488.6189 | 0.0000 | 0.9476E-01 |
| 6 | 29 | 8 | 21 | - | 28 | 7 | 22 | 1484.3029 | | 0.1487E-02 | 3 | 20 | 2 | 19 | - | 20 | 2 | 18 | 1488.8508 | | 0.5238E-03 |
| 6 | 17 | 9 | 9 | - | 18 | 8 | 8 | 1484.3246 | | 0.4750E-02 | 6 | 26 | 5 | 22 | - | 25 | 2 | 23 | 1488.8660 | | 0.8016E-04 |
| 6 | 17 | 9 | 8 | - | 18 | 8 | 9 | 1484.3246 | | 0.4750E-02 | 3 | 18 | 1 | 17 | - | 17 | 3 | 14 | 1489.0017 | | 0.1780E-03 |
| 3 | 22 | 2 | 21 | - | 22 | 2 | 20 | 1484.7493 | | 0.3012E-03 | 3 | 4 | 4 | 1 | - | 5 | 4 | 2 | 1489.0142 | 0.0002 | 0.1342E-01 |
| 3 | 8 | 5 | 1 | - | 7 | 5 | 2 | 1484.7670 | -0.0002 | 0.4651E-01 | 3 | 4 | 4 | 0 | - | 5 | 4 | 1 | 1489.0142 | 0.0002 | 0.1342E-01 |
| 3 | 8 | 5 | 2 | - | 7 | 5 | 3 | 1484.7670 | -0.0002 | 0.4651E-01 | 6 | 12 | 12 | 0 | - | 13 | 11 | 3 | 1489.2115 | | 0.8828E-04 |
| 8 | 15 | 12 | 3 | - | 18 | 11 | 6 | 1484.8835 | | 0.3198E-03 | 6 | 12 | 12 | 1 | - | 13 | 11 | 2 | 1489.2115 | | 0.8828E-04 |
| 8 | 15 | 12 | 4 | - | 18 | 11 | 5 | 1484.8835 | | 0.3198E-03 | 6 | 18 | 5 | 13 | - | 17 | 2 | 18 | 1489.5103 | | 0.5998E-04 |
| 6 | 21 | 5 | 17 | - | 26 | 2 | 18 | 1484.9827 | | 0.7435E-04 | 6 | 27 | 5 | 23 | - | 26 | 2 | 24 | 1489.5704 | | 0.5722E-04 |
| 8 | 28 | 4 | 22 | - | 25 | 1 | 25 | 1485.2823 | | 0.1205E-03 | 3 | 38 | 3 | 28 | - | 38 | 3 | 27 | 1489.8073 | | 0.1287E-03 |
| 3 | 6 | 6 | 1 | - | 7 | 6 | 2 | 1485.3632 | -0.0004 | 0.5411E-02 | 3 | 11 | 1 | 11 | - | 11 | 1 | 10 | 1489.7229 | 0.0001 | 0.4491E-02 |
| 3 | 6 | 6 | 0 | - | 7 | 6 | 1 | 1485.3632 | -0.0004 | 0.5411E-02 | 3 | 10 | 0 | 10 | - | 9 | 2 | 7 | 1490.1729 | 0.0001 | 0.1324E-03 |
| 3 | 5 | 1 | 4 | - | 6 | 1 | 5 | 1485.3949 | 0.0001 | 0.2218E+00 | 3 | 3 | 1 | 2 | - | 4 | 1 | 3 | 1490.2784 | 0.0001 | 0.1812E+00 |
| 3 | 5 | 0 | 5 | - | 6 | 0 | 6 | 1485.7813 | -0.0001 | 0.7949E-01 | 8 | 20 | 9 | 11 | - | 19 | 8 | 12 | 1490.2808 | | 0.2901E-02 |
| 3 | 13 | 1 | 13 | - | 13 | 1 | 12 | 1485.8063 | | 0.3069E-02 | 6 | 28 | 9 | 12 | - | 19 | 8 | 11 | 1490.2808 | | 0.2901E-02 |
| 6 | 22 | 5 | 18 | - | 21 | 2 | 19 | 1485.8325 | | 0.7839E-04 | 6 | 28 | 5 | 24 | - | 27 | 2 | 25 | 1490.3087 | | 0.5259E-04 |
| 3 | 5 | 2 | 3 | - | 6 | 2 | 4 | 1485.8861 | 0.0000 | 0.6024E-01 | 3 | 3 | 3 | 0 | - | 4 | 0 | 4 | 1490.5234 | 0.0001 | 0.5973E-03 |
| 3 | 5 | 2 | 4 | - | 6 | 2 | 5 | 1485.9565 | 0.0001 | 0.6024E-01 | 3 | 19 | 2 | 18 | - | 19 | 2 | 17 | 1490.6842 | | 0.6856E-03 |
| 3 | 17 | 1 | 16 | - | 16 | 3 | 13 | 1486.1042 | | 0.1723E-03 | 3 | 3 | 2 | 1 | - | 4 | 2 | 2 | 1490.7131 | 0.0002 | 0.3817E-01 |
| 3 | 5 | 1 | 5 | - | 6 | 1 | 6 | 1486.1783 | 0.0000 | 0.2239E+00 | 3 | 3 | 2 | 2 | - | 4 | 2 | 3 | 1490.7350 | 0.0002 | 0.3817E-01 |
| 6 | 30 | 8 | 23 | - | 29 | 7 | 22 | 1486.2048 | | 0.1094E-02 | 3 | 3 | 1 | 3 | - | 4 | 1 | 4 | 1490.8499 | 0.0001 | 0.1617E+00 |
| 6 | 30 | 8 | 22 | - | 29 | 7 | 23 | 1486.2050 | | 0.1094E-02 | 3 | 3 | 3 | 0 | - | 4 | 3 | 1 | 1491.0140 | 0.0003 | 0.5465E-01 |
| 3 | 5 | 3 | 2 | - | 6 | 3 | 3 | 1486.2264 | 0.0007 | 0.1249E+00 | 3 | 3 | 3 | 1 | - | 4 | 3 | 2 | 1491.0142 | 0.0002 | 0.5465E-01 |
| 3 | 5 | 3 | 3 | - | 6 | 3 | 4 | 1486.2275 | -0.0004 | 0.1249E+00 | 6 | 27 | 4 | 23 | - | 28 | 1 | 26 | 1491.0267 | | 0.9850E-04 |
| 3 | 8 | 0 | 8 | - | 7 | 2 | 5 | 1486.3083 | | 0.8200E-04 | 3 | 16 | 1 | 10 | - | 16 | 1 | 9 | 1491.4629 | -0.0002 | 0.5430E-02 |
| 6 | 18 | 9 | 10 | - | 17 | 8 | 9 | 1486.3291 | | 0.4082E-02 | 3 | 29 | 3 | 27 | - | 29 | 3 | 26 | 1491.4666 | | 0.1839E-03 |
| 6 | 18 | 9 | 9 | - | 17 | 8 | 10 | 1486.3291 | | 0.4082E-02 | 3 | 19 | 1 | 18 | - | 18 | 3 | 15 | 1491.7404 | | 0.1734E-03 |
| 6 | 14 | 12 | 2 | - | 15 | 11 | 5 | 1486.3685 | | 0.2643E-03 | 3 | 11 | 0 | 11 | - | 10 | 2 | 8 | 1491.8209 | | 0.1506E-03 |
| 6 | 14 | 12 | 3 | - | 15 | 11 | 4 | 1486.3685 | | 0.2643E-03 | 6 | 19 | 5 | 14 | - | 18 | 2 | 17 | 1492.1989 | | 0.8449E-04 |
| 6 | 23 | 5 | 19 | - | 22 | 2 | 20 | 1486.6106 | | 0.7794E-04 | 6 | 21 | 9 | 12 | - | 20 | 8 | 13 | 1492.2288 | | 0.2398E-02 |
| 3 | 5 | 4 | 1 | - | 6 | 4 | 2 | 1486.8310 | 0.0002 | 0.2330E-01 | 6 | 21 | 9 | 13 | - | 20 | 8 | 12 | 1492.2288 | | 0.2398E-02 |
| 3 | 5 | 4 | 2 | - | 6 | 4 | 3 | 1486.8310 | 0.0002 | 0.2330E-01 | 3 | 18 | 2 | 17 | - | 18 | 2 | 16 | 1492.3131 | | 0.8924E-02 |
| 3 | 21 | 2 | 20 | - | 21 | 2 | 19 | 1486.8770 | | 0.3982E-03 | 3 | 2 | 1 | 1 | - | 3 | 1 | 2 | 1492.7441 | 0.0000 | 0.1196E+00 |
| 3 | 17 | 5 | 12 | - | 16 | 2 | 15 | 1486.8816 | | 0.5417E-04 | 3 | 2 | 0 | 2 | - | 3 | 0 | 3 | 1492.9175 | 0.0000 | 0.4673E-01 |
| 3 | 5 | 5 | 1 | - | 6 | 5 | 2 | 1487.1317 | 0.0000 | 0.2682E-01 | 3 | 9 | 1 | 9 | - | 9 | 1 | 8 | 1493.0511 | -0.0002 | 0.8574E-02 |
| 3 | 5 | 5 | 0 | - | 6 | 5 | 1 | 1487.1317 | 0.0000 | 0.2682E-01 | 3 | 2 | 2 | 0 | - | 3 | 2 | 1 | 1493.1293 | 0.0002 | 0.2211E-01 |
| 6 | 24 | 5 | 20 | - | 23 | 2 | 21 | 1487.2582 | | 0.8080E-04 | 3 | 2 | 2 | 1 | - | 3 | 2 | 2 | 1493.1385 | 0.0002 | 0.2211E-01 |
| 6 | 13 | 12 | 1 | - | 14 | 11 | 4 | 1487.8160 | | 0.1835E-03 | 3 | 28 | 3 | 26 | - | 28 | 3 | 25 | 1493.1555 | | 0.2610E-03 |
| 6 | 13 | 12 | 2 | - | 14 | 11 | 3 | 1487.8160 | | 0.1835E-03 | 3 | 2 | 1 | 2 | - | 3 | 1 | 3 | 1493.1910 | -0.0001 | 0.1198E+00 |
| 3 | 4 | 1 | 3 | - | 5 | 1 | 4 | 1487.8288 | -0.0002 | 0.1962E+00 | 3 | 12 | 0 | 12 | - | 11 | 2 | 9 | 1493.2401 | | 0.1603E-03 |
| 3 | 12 | 1 | 12 | - | 12 | 1 | 11 | 1487.8354 | | 0.3714E-02 | 3 | 17 | 2 | 16 | - | 17 | 2 | 15 | 1493.7944 | | 0.1155E-02 |
| 3 | 4 | 0 | 4 | - | 5 | 0 | 5 | 1488.1444 | 0.0001 | 0.7074E-01 | 6 | 22 | 9 | 13 | - | 21 | 8 | 14 | 1494.1589 | | 0.1957E-02 |
| 6 | 25 | 5 | 21 | - | 24 | 2 | 22 | 1488.2043 | | 0.5817E-04 | 6 | 22 | 9 | 14 | - | 21 | 8 | 13 | 1494.1589 | | 0.1957E-02 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|------------|------------|----------|
| 3 | 20 | 1 | 19 | 19 | 3 | 16 | | 1494.2876 | | 0.1647E-03 | 6 | 25 | 9 | 16 | 24 | 8 | 17 | 1499.8484 | | 0.9843E-03 | |
| 3 | 13 | 0 | 13 | 12 | 2 | 10 | | 1494.4053 | | 0.1606E-03 | 6 | 25 | 9 | 17 | 24 | 8 | 16 | 1499.8484 | | 0.9843E-03 | |
| 6 | 10 | 10 | 0 | 9 | 9 | 1 | | 1494.4294 | -0.0230* | 0.1673E-01 | 3 | 18 | 11 | 7 | 18 | 11 | 8 | 1499.8805 | | 0.1426E-03 | |
| 6 | 10 | 10 | 1 | 9 | 9 | 0 | | 1494.4294 | -0.0230* | 0.1673E-01 | 3 | 18 | 11 | 8 | 18 | 11 | 7 | 1499.8805 | | 0.1426E-03 | |
| 3 | 8 | 1 | 8 | 8 | 1 | 7 | | 1494.4844 | -0.0002 | 0.7985E-02 | 6 | 16 | 6 | 10 | 16 | 3 | 13 | 1499.8915 | | 0.2509E-03 | |
| 3 | 27 | 3 | 25 | 27 | 3 | 24 | | 1494.6698 | | 0.3680E-03 | 3 | 9 | 2 | 8 | 9 | 2 | 7 | 1499.9735 | | 0.7290E-02 | |
| 6 | 20 | 5 | 15 | 19 | 2 | 18 | | 1494.9552 | | 0.6745E-04 | 3 | 1 | 1 | 1 | 1 | 1 | 0 | 1500.0721 | 0.0000 | 0.7047E-01 | |
| 3 | 16 | 2 | 15 | 16 | 2 | 14 | | 1495.1071 | | 0.1485E-02 | 3 | 8 | 2 | 7 | 8 | 2 | 6 | 1500.1843 | | 0.9007E-02 | |
| 3 | 1 | 1 | 0 | 2 | 1 | 1 | | 1495.2253 | 0.0001 | 0.8941E-01 | 3 | 21 | 3 | 19 | 21 | 3 | 18 | 1500.2283 | | 0.2400E-02 | |
| 3 | 14 | 0 | 14 | 13 | 2 | 11 | | 1495.2964 | | 0.1519E-03 | 6 | 13 | 10 | 4 | 12 | 9 | 3 | 1500.3119 | -0.0163* | 0.1379E-01 | |
| 3 | 19 | 0 | 19 | 18 | 2 | 16 | | 1495.3242 | | 0.5640E-04 | 6 | 13 | 10 | 3 | 12 | 9 | 4 | 1500.3119 | -0.0163* | 0.1379E-01 | |
| 3 | 1 | 0 | 1 | 2 | 0 | 2 | | 1495.3252 | -0.0001 | 0.3211E-01 | 3 | 7 | 2 | 6 | 7 | 2 | 5 | 1500.3208 | | 0.1115E-01 | |
| 3 | 1 | 1 | 1 | 2 | 1 | 2 | | 1495.5354 | 0.0001 | 0.8940E-01 | 6 | 15 | 6 | 9 | 15 | 3 | 12 | 1500.3503 | | 0.5073E-03 | |
| 3 | 7 | 1 | 7 | 7 | 1 | 6 | | 1495.7607 | -0.0003 | 0.9754E-02 | 3 | 8 | 2 | 5 | 6 | 2 | 4 | 1500.3997 | | 0.1390E-01 | |
| 3 | 15 | 0 | 15 | 14 | 2 | 12 | | 1495.8988 | | 0.1363E-03 | 3 | 1 | 1 | 0 | 1 | 1 | 1 | 1500.4065 | 0.0000 | 0.7036E-01 | |
| 3 | 18 | 0 | 18 | 17 | 2 | 15 | | 1495.9127 | | 0.7475E-04 | 3 | 2 | 2 | 1 | 2 | 2 | 0 | 1500.4237 | | 0.4526E-01 | |
| 3 | 28 | 3 | 24 | 28 | 3 | 23 | | 1496.0085 | | 0.5148E-03 | 3 | 2 | 2 | 0 | 2 | 2 | 1 | 1500.4287 | | 0.4525E-01 | |
| 6 | 23 | 9 | 14 | 22 | 8 | 15 | | 1496.0717 | | 0.1577E-02 | 3 | 5 | 2 | 4 | 5 | 2 | 3 | 1500.4366 | | 0.1755E-01 | |
| 3 | 23 | 9 | 15 | 22 | 8 | 14 | | 1496.0717 | | 0.1577E-02 | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 1500.4377 | | 0.3070E-01 | |
| 3 | 16 | 0 | 16 | 15 | 2 | 13 | | 1496.2037 | | 0.1185E-03 | 3 | 4 | 2 | 3 | 4 | 2 | 2 | 1500.4453 | | 0.2271E-01 | |
| 3 | 17 | 0 | 17 | 16 | 2 | 14 | | 1496.2078 | | 0.9527E-04 | 3 | 3 | 2 | 1 | 3 | 2 | 2 | 1500.4633 | | 0.3070E-01 | |
| 3 | 15 | 2 | 14 | 15 | 2 | 13 | | 1496.2517 | | 0.1898E-02 | 3 | 23 | 1 | 22 | 22 | 3 | 19 | 1500.4679 | | 0.1119E-03 | |
| 6 | 11 | 10 | 2 | 10 | 9 | 1 | | 1496.4188 | -0.0212* | 0.1589E-01 | 6 | 16 | 6 | 11 | 16 | 3 | 14 | 1500.4833 | | 0.8463E-04 | |
| 8 | 11 | 10 | 1 | 10 | 9 | 2 | | 1496.4188 | -0.0212* | 0.1589E-01 | 3 | 4 | 2 | 2 | 4 | 2 | 3 | 1500.5216 | | 0.2270E-01 | |
| 3 | 21 | 1 | 20 | 20 | 3 | 17 | | 1496.8115 | | 0.1506E-03 | 3 | 5 | 2 | 3 | 5 | 2 | 4 | 1500.8144 | | 0.1753E-01 | |
| 3 | 6 | 1 | 6 | 8 | 1 | 5 | | 1496.8784 | 0.0002 | 0.1203E-01 | 3 | 26 | 3 | 18 | 26 | 3 | 17 | 1500.8475 | | 0.3189E-02 | |
| 6 | 28 | 4 | 24 | 27 | 1 | 27 | | 1496.9901 | | 0.7900E-04 | 6 | 22 | 5 | 17 | 21 | 2 | 20 | 1500.9718 | | 0.6829E-04 | |
| 3 | 25 | 3 | 23 | 25 | 3 | 22 | | 1497.1732 | | 0.7139E-03 | 3 | 3 | 3 | 1 | 3 | 3 | 0 | 1500.7335 | 0.0003 | 0.1894E+00 | |
| 3 | 14 | 2 | 13 | 13 | 4 | 12 | | 1497.2321 | | 0.2410E-02 | 3 | 3 | 3 | 0 | 3 | 3 | 1 | 1500.7336 | 0.0002 | 0.1694E+00 | |
| 3 | 0 | 0 | 0 | 1 | 0 | 1 | | 1497.7449 | 0.0001 | 0.1636E-01 | 6 | 14 | 6 | 8 | 14 | 3 | 11 | 1500.7358 | | 0.1233E-02 | |
| 6 | 21 | 5 | 16 | 20 | 2 | 19 | | 1497.7887 | | 0.6872E-04 | 3 | 6 | 2 | 4 | 6 | 2 | 5 | 1500.7543 | | 0.1386E-01 | |
| 3 | 5 | 1 | 5 | 5 | 1 | 4 | | 1497.8368 | 0.0000 | 0.1508E-01 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 1500.7559 | -0.0003 | 0.3822E-01 | |
| 6 | 24 | 9 | 16 | 23 | 8 | 15 | | 1497.9673 | | 0.1254E-02 | 6 | 15 | 6 | 10 | 15 | 3 | 13 | 1500.7645 | | 0.2017E-03 | |
| 6 | 24 | 9 | 15 | 23 | 8 | 16 | | 1497.9673 | | 0.1254E-02 | 3 | 4 | 3 | 2 | 4 | 3 | 1 | 1500.7677 | 0.0001 | 0.1254E+00 | |
| 3 | 13 | 2 | 12 | 13 | 2 | 11 | | 1498.0546 | | 0.3040E-02 | 3 | 4 | 3 | 1 | 4 | 3 | 2 | 1500.7681 | -0.0002 | 0.1254E+00 | |
| 3 | 24 | 3 | 22 | 24 | 3 | 21 | | 1498.1687 | | 0.9810E-03 | 3 | 5 | 3 | 3 | 5 | 3 | 2 | 1500.8104 | 0.0008 | 0.9706E-01 | |
| 6 | 12 | 10 | 2 | 11 | 9 | 3 | | 1498.3792 | -0.0190* | 0.1490E-01 | 3 | 5 | 3 | 2 | 5 | 3 | 3 | 1500.8118 | -0.0006 | 0.9706E-01 | |
| 6 | 12 | 10 | 3 | 11 | 9 | 2 | | 1498.3792 | -0.0190* | 0.1490E-01 | 3 | 17 | 11 | 6 | 17 | 11 | 7 | 1500.8311 | 0.2431E-03 | | |
| 3 | 4 | 1 | 4 | 4 | 1 | 3 | | 1498.6354 | 0.0000 | 0.1940E-01 | 3 | 17 | 11 | 7 | 17 | 11 | 6 | 1500.8311 | 0.2431E-03 | | |
| 3 | 22 | 1 | 21 | 21 | 3 | 18 | | 1498.8809 | | 0.1324E-03 | 3 | 6 | 3 | 4 | 6 | 3 | 3 | 1500.8813 | 0.0019 | 0.7700E-01 | |
| 6 | 18 | 6 | 12 | 18 | 3 | 15 | | 1498.7262 | | 0.7377E-04 | 3 | 6 | 3 | 3 | 6 | 3 | 4 | 1500.8854 | -0.0022 | 0.7700E-01 | |
| 3 | 12 | 2 | 11 | 12 | 2 | 10 | | 1498.7264 | | 0.3812E-02 | 3 | 7 | 3 | 5 | 7 | 3 | 4 | 1500.9198 | 0.0001 | 0.8196E-01 | |
| 3 | 19 | 11 | 9 | 19 | 11 | 8 | | 1498.9399 | | 0.8081E-04 | 3 | 7 | 3 | 4 | 7 | 3 | 5 | 1500.9298 | 0.0001 | 0.6195E-01 | |
| 3 | 19 | 11 | 8 | 19 | 11 | 9 | | 1498.9399 | | 0.8061E-04 | 3 | 7 | 2 | 5 | 7 | 2 | 6 | 1500.9584 | | 0.1110E-01 | |
| 3 | 23 | 3 | 21 | 23 | 3 | 20 | | 1499.0024 | | 0.1335E-02 | 3 | 19 | 3 | 17 | 19 | 3 | 16 | 1500.9578 | | 0.4142E-02 | |
| 3 | 11 | 2 | 10 | 11 | 2 | 9 | | 1499.2609 | | 0.4751E-02 | 3 | 8 | 3 | 6 | 8 | 3 | 5 | 1500.9838 | -0.0001 | 0.5022E-01 | |
| 3 | 3 | 1 | 3 | 3 | 1 | 2 | | 1499.2740 | 0.0000 | 0.2613E-01 | 3 | 8 | 3 | 5 | 8 | 3 | 6 | 1501.0061 | -0.0001 | 0.5021E-01 | |
| 6 | 17 | 6 | 11 | 17 | 3 | 14 | | 1499.3533 | | 0.1343E-03 | 6 | 14 | 8 | 9 | 14 | 3 | 12 | 1501.0236 | | 0.5282E-03 | |
| 3 | 10 | 2 | 9 | 10 | 2 | 8 | | 1499.6713 | | 0.5895E-02 | 6 | 13 | 6 | 7 | 13 | 3 | 10 | 1501.0400 | | 0.4401E-02 | |
| 3 | 22 | 3 | 20 | 22 | 3 | 19 | | 1499.6847 | | 0.1799E-02 | 3 | 9 | 3 | 7 | 9 | 3 | 6 | 1501.0519 | 0.0000 | 0.4078E-01 | |
| 3 | 2 | 1 | 2 | 2 | 1 | 1 | | 1499.7531 | 0.0001 | 0.3841E-01 | 3 | 9 | 3 | 6 | 9 | 3 | 7 | 1501.0963 | -0.0002 | 0.4076E-01 | |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|------------|------------|----------|
| 3 | 10 | 3 | 8 | 10 | 3 | 7 | | 1501.1198 | -0.0002 | 0.3295E-01 | 3 | 8 | 5 | 3 | 8 | 5 | 4 | 1501.9242 | 0.0002 | 0.7383E-01 | |
| 3 | 4 | 4 | 0 | 4 | 4 | 1 | | 1501.1593 | 0.0001 | 0.5604E-01 | 3 | 8 | 5 | 4 | 8 | 5 | 3 | 1501.9242 | 0.0002 | 0.7383E-01 | |
| 3 | 4 | 4 | 1 | 4 | 4 | 0 | | 1501.1593 | 0.0001 | 0.5604E-01 | 3 | 13 | 4 | 10 | 13 | 4 | 9 | 1501.9292 | 0.0005 | 0.8040E-02 | |
| 3 | 18 | 3 | 16 | 18 | 3 | 15 | | 1501.1747 | | 0.6357E-02 | 3 | 13 | 4 | 9 | 13 | 4 | 10 | 1501.9384 | -0.0005 | 0.8039E-02 | |
| 3 | 11 | 3 | 9 | 11 | 3 | 8 | | 1501.1775 | -0.0008 | 0.2589E-01 | 3 | 24 | 1 | 23 | 23 | 3 | 20 | 1501.9482 | 0.0009 | 0.9079E-04 | |
| 3 | 12 | 3 | 10 | 12 | 3 | 9 | | 1501.1904 | -0.0012 | 0.1648E-01 | 3 | 4 | 1 | 3 | 4 | 1 | 4 | 1501.9777 | 0.0009 | 0.1909E-01 | |
| 3 | 10 | 3 | 7 | 10 | 3 | 8 | | 1501.2015 | | 0.3289E-01 | 3 | 14 | 3 | 11 | 14 | 3 | 12 | 1501.9795 | 0.1359E-01 | | |
| 3 | 5 | 4 | 2 | 5 | 4 | 1 | | 1501.2063 | | 0.4340E-01 | 3 | 9 | 5 | 5 | 9 | 5 | 4 | 1502.0203 | -0.0001 | 0.8031E-01 | |
| 3 | 5 | 4 | 1 | 5 | 4 | 2 | | 1501.2063 | | 0.4340E-01 | 3 | 9 | 5 | 4 | 9 | 5 | 5 | 1502.0203 | -0.0001 | 0.8031E-01 | |
| 3 | 8 | 2 | 6 | 8 | 2 | 7 | | 1501.2373 | | 0.1900E-02 | 6 | 9 | 6 | 3 | 9 | 3 | 6 | 1502.0548 | 0.1279E-03 | | |
| 6 | 13 | 8 | 8 | 13 | 3 | 11 | | 1501.2569 | | 0.3447E-01 | 3 | 14 | 4 | 11 | 14 | 4 | 10 | 1502.0620 | -0.0005 | 0.8469E-02 | |
| 3 | 6 | 4 | 2 | 6 | 4 | 3 | | 1501.2629 | 0.0000 | 0.3447E-01 | 6 | 9 | 8 | 4 | 9 | 3 | 7 | 1502.0750 | 0.1333E-03 | | |
| 3 | 8 | 4 | 3 | 8 | 4 | 2 | | 1501.2629 | 0.0001 | 0.3447E-01 | 3 | 14 | 4 | 10 | 14 | 4 | 11 | 1502.0784 | -0.0005 | 0.8469E-02 | |
| 3 | 3 | 1 | 2 | 3 | 1 | 3 | | 1501.2798 | 0.0001 | 0.2588E-01 | 3 | 10 | 2 | 8 | 10 | 2 | 9 | 1502.1061 | 0.5801E-02 | | |
| 3 | 17 | 3 | 15 | 17 | 3 | 14 | | 1501.3145 | | 0.6854E-02 | 3 | 10 | 5 | 6 | 10 | 5 | 5 | 1502.1271 | -0.0001 | 0.4931E-01 | |
| 3 | 11 | 3 | 8 | 11 | 3 | 9 | | 1501.3176 | -0.0009 | 0.2546E-01 | 3 | 15 | 4 | 12 | 15 | 4 | 11 | 1502.1272 | -0.0001 | 0.4931E-01 | |
| 3 | 7 | 4 | 4 | 7 | 4 | 3 | | 1501.3290 | 0.0001 | 0.2777E-01 | 6 | 14 | 10 | 5 | 13 | 9 | 4 | 1502.2031 | 0.5174E-02 | | |
| 3 | 7 | 4 | 3 | 7 | 4 | 4 | | 1501.3291 | 0.0001 | 0.2777E-01 | 6 | 14 | 10 | 4 | 13 | 9 | 5 | 1502.2192 | 0.1259E-01 | | |
| 3 | 12 | 3 | 9 | 12 | 3 | 10 | | 1501.3868 | -0.0008 | 0.1197E-01 | 6 | 14 | 10 | 4 | 13 | 9 | 5 | 1502.2192 | 0.1259E-01 | | |
| 3 | 18 | 3 | 14 | 16 | 3 | 13 | | 1501.3923 | | 0.8664E-02 | 3 | 15 | 4 | 11 | 15 | 4 | 12 | 1502.2313 | -0.0004 | 0.5172E-02 | |
| 3 | 8 | 4 | 5 | 8 | 4 | 4 | | 1501.4049 | 0.0000 | 0.2256E-01 | 3 | 11 | 5 | 7 | 11 | 5 | 6 | 1502.2448 | 0.0000 | 0.4027E-01 | |
| 3 | 8 | 4 | 4 | 8 | 4 | 5 | | 1501.4052 | -0.0002 | 0.2256E-01 | 3 | 11 | 5 | 6 | 11 | 5 | 7 | 1502.2448 | 0.0000 | 0.4027E-01 | |
| 3 | 13 | 3 | 11 | 13 | 3 | 10 | | 1501.4178 | | 0.1328E-01 | 3 | 15 | 3 | 12 | 15 | 3 | 13 | 1502.2665 | 0.1101E-01 | | |
| 3 | 14 | 3 | 12 | 14 | 3 | 11 | | 1501.4220 | | 0.1294E-01 | 3 | 18 | 4 | 13 | 18 | 4 | 12 | 1502.3514 | 0.4109E-02 | | |
| 3 | 15 | 3 | 13 | 15 | 3 | 12 | | 1501.4229 | | 0.1077E-01 | 3 | 6 | 6 | 0 | 6 | 6 | 1 | 1502.3518 | -0.0003 | 0.3463E-01 | |
| 3 | 9 | 4 | 6 | 9 | 4 | 5 | | 1501.4904 | 0.0001 | 0.1839E-01 | 3 | 6 | 6 | 1 | 6 | 6 | 0 | 1502.3518 | -0.0003 | 0.3463E-01 | |
| 3 | 9 | 4 | 5 | 9 | 4 | 6 | | 1501.4908 | -0.0004 | 0.1839E-01 | 3 | 12 | 5 | 8 | 12 | 5 | 7 | 1502.3730 | 0.0001 | 0.3280E-01 | |
| 6 | 12 | 6 | 6 | 12 | 3 | 9 | | 1501.4989 | | 0.5455E-02 | 3 | 12 | 5 | 7 | 12 | 5 | 8 | 1502.3730 | 0.0000 | 0.3280E-01 | |
| 3 | 18 | 4 | 7 | 10 | 4 | 6 | | 1501.5857 | 0.0004 | 0.1501E-01 | 3 | 18 | 4 | 12 | 18 | 4 | 13 | 1502.3982 | 0.4107E-02 | | |
| 3 | 18 | 4 | 8 | 10 | 4 | 7 | | 1501.5869 | -0.0008 | 0.1501E-01 | 3 | 7 | 6 | 1 | 7 | 6 | 2 | 1502.4403 | -0.0001 | 0.2799E-01 | |
| 3 | 9 | 2 | 7 | 9 | 2 | 8 | | 1501.6146 | | 0.7211E-02 | 3 | 7 | 6 | 2 | 7 | 6 | 1 | 1502.4403 | -0.0001 | 0.2799E-01 | |
| 6 | 12 | 8 | 7 | 12 | 3 | 10 | | 1501.6484 | | 0.9921E-02 | 3 | 17 | 4 | 14 | 17 | 4 | 13 | 1502.5058 | 0.3239E-02 | | |
| 6 | 11 | 6 | 5 | 11 | 3 | 8 | | 1501.6897 | | 0.1188E-02 | 3 | 13 | 5 | 9 | 13 | 5 | 8 | 1502.5120 | 0.0000 | 0.2661E-01 | |
| 3 | 11 | 4 | 8 | 11 | 4 | 7 | | 1501.6907 | 0.0022R | 0.1223E-01 | 3 | 13 | 5 | 8 | 13 | 5 | 9 | 1502.5122 | -0.0001 | 0.2661E-01 | |
| 3 | 11 | 4 | 7 | 11 | 4 | 8 | | 1501.6931 | -0.0003 | 0.1223E-01 | 3 | 8 | 6 | 2 | 8 | 6 | 3 | 1502.5413 | 0.0001 | 0.2282E-01 | |
| 3 | 5 | 5 | 1 | 5 | 5 | 0 | | 1501.7001 | -0.0003 | 0.1415E+00 | 3 | 8 | 6 | 3 | 8 | 6 | 2 | 1502.5413 | 0.0001 | 0.2282E-01 | |
| 3 | 5 | 5 | 0 | 5 | 5 | 1 | | 1501.7001 | -0.0003 | 0.1415E+00 | 3 | 17 | 4 | 13 | 17 | 4 | 14 | 1502.5808 | 0.3237E-02 | | |
| 6 | 26 | 9 | 18 | 25 | 8 | 17 | | 1501.7094 | | 0.7828E-03 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 1502.6116 | 0.0001 | 0.1638E-01 | |
| 6 | 26 | 9 | 17 | 25 | 8 | 18 | | 1501.7094 | | 0.7828E-03 | 3 | 16 | 3 | 13 | 16 | 3 | 14 | 1502.6215 | 0.8752E-02 | | |
| 3 | 13 | 3 | 10 | 13 | 3 | 11 | | 1501.7571 | | 0.1573E-01 | 3 | 9 | 6 | 3 | 9 | 6 | 4 | 1502.6545 | 0.0004 | 0.1869E-01 | |
| 6 | 11 | 6 | 6 | 11 | 3 | 9 | | 1501.7579 | | 0.1589E-02 | 3 | 9 | 8 | 4 | 9 | 8 | 3 | 1502.6545 | 0.0004 | 0.1869E-01 | |
| 3 | 6 | 5 | 1 | 6 | 5 | 2 | | 1501.7842 | 0.0000 | 0.1125E+00 | 3 | 14 | 5 | 10 | 14 | 5 | 9 | 1502.6617 | 0.0001 | 0.2148E-01 | |
| 3 | 6 | 5 | 2 | 6 | 5 | 1 | | 1501.7842 | 0.0000 | 0.1125E+00 | 3 | 14 | 5 | 9 | 14 | 5 | 10 | 1502.6620 | -0.0002 | 0.2148E-01 | |
| 3 | 18 | 11 | 5 | 16 | 11 | 6 | | 1501.7948 | | 0.4028E-03 | 3 | 18 | 4 | 15 | 18 | 4 | 14 | 1502.6638 | 0.2532E-02 | | |
| 3 | 18 | 11 | 6 | 16 | 11 | 5 | | 1501.7948 | | 0.4028E-03 | 3 | 11 | 2 | 9 | 11 | 2 | 10 | 1502.7288 | 0.4846E-02 | | |
| 3 | 12 | 4 | 9 | 12 | 4 | 8 | | 1501.8053 | 0.0012 | 0.9938E-02 | 3 | 15 | 11 | 5 | 15 | 11 | 4 | 1502.7758 | 0.6530E-03 | | |
| 3 | 12 | 4 | 8 | 12 | 4 | 9 | | 1501.8101 | -0.0036 | 0.9937E-02 | 3 | 15 | 11 | 4 | 15 | 11 | 5 | 1502.7758 | 0.6530E-03 | | |
| 3 | 7 | 5 | 3 | 7 | 5 | 2 | | 1501.8387 | 0.0001 | 0.9076E-01 | 3 | 10 | 6 | 4 | 10 | 6 | 5 | 1502.7802 | 0.1532E-01 | | |
| 3 | 7 | 5 | 2 | 7 | 5 | 3 | | 1501.8387 | 0.0001 | 0.9076E-01 | 3 | 10 | 6 | 5 | 10 | 6 | 4 | 1502.7802 | 0.1532E-01 | | |
| 6 | 10 | 6 | 4 | 10 | 3 | 7 | | 1501.8835 | | 0.3592E-03 | 3 | 18 | 4 | 14 | 18 | 4 | 15 | 1502.7813 | 0.2530E-02 | | |
| 6 | 10 | 6 | 5 | 10 | 3 | 8 | | 1501.9211 | | 0.3993E-03 | 3 | 15 | 5 | 11 | 15 | 5 | 10 | 1502.8221 | 0.1723E-01 | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 3 | 15 | 5 | 10 | | 15 | 5 | 11 | 1502.8228 | -0.0003 | 0.1723E-01 | 3 | 11 | 7 | 4 | | 11 | 7 | 5 | 1503.7086 | 0.0010* | 0.3076E-01 |
| 3 | 19 | 4 | 16 | | 19 | 4 | 15 | 1502.8234 | | 0.1963E-02 | 3 | 11 | 7 | 5 | | 11 | 7 | 4 | 1503.7086 | 0.0010* | 0.3076E-01 |
| 3 | 5 | 1 | 4 | | 5 | 1 | 5 | 1502.8488 | 0.0000 | 0.1472E-01 | 3 | 14 | 11 | 4 | | 14 | 11 | 3 | 1503.7804 | | 0.1042E-02 |
| 3 | 11 | 6 | 8 | | 11 | 6 | 5 | 1502.9181 | 0.0005 | 0.1255E-01 | 3 | 14 | 11 | 3 | | 14 | 11 | 4 | 1503.7804 | | 0.1042E-02 |
| 3 | 11 | 6 | 5 | | 11 | 6 | 8 | 1502.9181 | 0.0005 | 0.1255E-01 | 3 | 20 | 5 | 16 | | 20 | 5 | 15 | 1503.7817 | | 0.5134E-02 |
| 3 | 30 | 4 | 27 | 30 | 4 | 26 | | 1502.9449 | | 0.6082E-04 | 3 | 18 | 6 | 10 | | 18 | 6 | 11 | 1503.7885 | | 0.4351E-02 |
| 3 | 20 | 4 | 17 | 20 | 4 | 16 | | 1502.9812 | | 0.1508E-02 | 3 | 18 | 6 | 11 | | 18 | 6 | 10 | 1503.7885 | | 0.4351E-02 |
| 3 | 18 | 5 | 12 | 16 | 5 | 11 | | 1502.9933 | 0.0003 | 0.1373E-01 | 3 | 20 | 5 | 15 | | 20 | 5 | 16 | 1503.7900 | | 0.5134E-02 |
| 3 | 18 | 5 | 11 | 16 | 5 | 12 | | 1502.9941 | -0.0008 | 0.1373E-01 | 3 | 22 | 4 | 18 | | 22 | 4 | 19 | 1503.8297 | | 0.8616E-03 |
| 3 | 19 | 4 | 15 | 19 | 4 | 16 | | 1503.0024 | | 0.1961E-02 | 3 | 6 | 1 | 5 | | 6 | 1 | 6 | 1503.8921 | | 0.1163E-01 |
| 3 | 17 | 3 | 14 | 17 | 3 | 15 | | 1503.0558 | | 0.8868E-02 | 3 | 12 | 7 | 5 | | 12 | 7 | 6 | 1503.8956 | 0.0011* | 0.2523E-01 |
| 3 | 12 | 6 | 7 | 12 | 6 | 6 | | 1503.0682 | 0.0007 | 0.1025E-01 | 3 | 12 | 7 | 6 | | 12 | 7 | 5 | 1503.8956 | 0.0011* | 0.2523E-01 |
| 3 | 12 | 6 | 6 | 12 | 6 | 7 | | 1503.0682 | 0.0007 | 0.1025E-01 | 3 | 26 | 1 | 25 | | 26 | 3 | 22 | 1503.9174 | | 0.5297E-04 |
| 3 | 25 | 1 | 24 | 24 | 3 | 21 | | 1503.1027 | | 0.7074E-04 | 3 | 8 | 8 | 1 | | 8 | 8 | 0 | 1503.9662 | -0.0007 | 0.1310E-01 |
| 3 | 7 | 7 | 0 | 7 | 7 | 1 | | 1503.1093 | -0.0008* | 0.8758E-01 | 3 | 8 | 8 | 0 | | 8 | 8 | 1 | 1503.9662 | -0.0007 | 0.1310E-01 |
| 3 | 7 | 7 | 1 | 7 | 7 | 0 | | 1503.1093 | -0.0008* | 0.8758E-01 | 3 | 17 | 6 | 12 | | 17 | 6 | 11 | 1503.9978 | 0.0022 | 0.3456E-02 |
| 3 | 21 | 4 | 18 | 21 | 4 | 17 | | 1503.1331 | | 0.1148E-02 | 3 | 17 | 6 | 11 | | 17 | 6 | 12 | 1503.9978 | 0.0022 | 0.3456E-02 |
| 3 | 17 | 5 | 13 | 17 | 5 | 12 | | 1503.1749 | 0.0006 | 0.1087E-01 | 3 | 21 | 5 | 17 | | 21 | 5 | 16 | 1504.0037 | -0.0037 | 0.3930E-02 |
| 3 | 17 | 5 | 12 | 17 | 5 | 13 | | 1503.1768 | -0.0011 | 0.1087E-01 | 3 | 21 | 5 | 16 | | 21 | 5 | 17 | 1504.0175 | | 0.3930E-02 |
| 6 | 29 | 4 | 25 | 28 | 1 | 28 | | 1503.1816 | | 0.6228E-04 | 3 | 13 | 7 | 7 | | 13 | 7 | 6 | 1504.0969 | | 0.2063E-01 |
| 3 | 13 | 6 | 8 | 13 | 6 | 7 | | 1503.2303 | | 0.8341E-02 | 3 | 13 | 7 | 6 | | 13 | 7 | 7 | 1504.0969 | | 0.2063E-01 |
| 3 | 13 | 6 | 7 | 13 | 6 | 8 | | 1503.2303 | | 0.8341E-02 | 6 | 15 | 10 | 6 | | 14 | 9 | 5 | 1504.1025 | | 0.1133E-01 |
| 3 | 8 | 7 | 2 | 8 | 7 | 1 | | 1503.2383 | -0.0004* | 0.5528E-01 | 8 | 15 | 10 | 5 | | 14 | 9 | 6 | 1504.1025 | | 0.1133E-01 |
| 3 | 8 | 7 | 1 | 8 | 7 | 2 | | 1503.2383 | -0.0004* | 0.5528E-01 | 3 | 9 | 8 | 1 | | 9 | 8 | 2 | 1504.1639 | -0.0002 | 0.1084E-01 |
| 3 | 29 | 4 | 26 | 29 | 4 | 25 | | 1503.2384 | | 0.8832E-04 | 3 | 9 | 8 | 2 | | 9 | 8 | 1 | 1504.1639 | -0.0002 | 0.1084E-01 |
| 3 | 20 | 4 | 16 | 20 | 4 | 17 | | 1503.2477 | | 0.1605E-02 | 3 | 23 | 4 | 19 | | 23 | 4 | 20 | 1504.1785 | | 0.8418E-03 |
| 3 | 22 | 4 | 19 | 22 | 4 | 18 | | 1503.2737 | | 0.8652E-03 | 3 | 19 | 3 | 16 | | 19 | 3 | 17 | 1504.2181 | | 0.4087E-02 |
| 3 | 18 | 5 | 14 | 18 | 5 | 13 | | 1503.3689 | 0.0010 | 0.8535E-02 | 3 | 18 | 6 | 13 | | 18 | 6 | 12 | 1504.2188 | 0.0008 | 0.2725E-02 |
| 3 | 18 | 5 | 13 | 18 | 5 | 14 | | 1503.3700 | -0.0020 | 0.8636E-02 | 3 | 18 | 6 | 12 | | 18 | 6 | 13 | 1504.2188 | 0.0007 | 0.2725E-02 |
| 3 | 9 | 7 | 2 | 9 | 7 | 3 | | 1503.3787 | 0.0001* | 0.4543E-01 | 3 | 22 | 5 | 18 | | 22 | 5 | 17 | 1504.2349 | | 0.2981E-02 |
| 3 | 9 | 7 | 3 | 9 | 7 | 2 | | 1503.3787 | 0.0001* | 0.4543E-01 | 3 | 22 | 5 | 17 | | 22 | 5 | 18 | 1504.2585 | | 0.2980E-02 |
| 3 | 23 | 4 | 20 | 23 | 4 | 19 | | 1503.3969 | | 0.6455E-03 | 3 | 14 | 7 | 8 | | 14 | 7 | 7 | 1504.3120 | 0.0014* | 0.1678E-01 |
| 3 | 14 | 6 | 9 | 14 | 6 | 8 | | 1503.4045 | 0.0012 | 0.6754E-02 | 3 | 14 | 7 | 7 | | 14 | 7 | 8 | 1504.3120 | 0.0014* | 0.1678E-01 |
| 3 | 14 | 6 | 8 | 14 | 6 | 9 | | 1503.4045 | 0.0012 | 0.6754E-02 | 3 | 10 | 8 | 2 | | 10 | 8 | 3 | 1504.3817 | 0.0003 | 0.8982E-02 |
| 3 | 28 | 4 | 25 | 28 | 4 | 24 | | 1503.4313 | | 0.1267E-03 | 3 | 10 | 8 | 3 | | 10 | 8 | 2 | 1504.3817 | 0.0003 | 0.8982E-02 |
| 3 | 24 | 4 | 21 | 24 | 4 | 20 | | 1503.4948 | | 0.4766E-03 | 3 | 13 | 2 | 11 | | 13 | 2 | 12 | 1504.4288 | | 0.2922E-02 |
| 3 | 12 | 2 | 10 | 12 | 2 | 11 | | 1503.4980 | | 0.3698E-02 | 3 | 19 | 6 | 14 | | 19 | 6 | 13 | 1504.4508 | 0.0014 | 0.2132E-02 |
| 3 | 21 | 4 | 17 | 21 | 4 | 18 | | 1503.5217 | | 0.1145E-02 | 3 | 19 | 6 | 13 | | 19 | 6 | 14 | 1504.4509 | 0.0013 | 0.2132E-02 |
| 3 | 10 | 7 | 4 | 10 | 7 | 3 | | 1503.5363 | 0.0006* | 0.3739E-01 | 3 | 23 | 5 | 19 | | 23 | 6 | 18 | 1504.4747 | | 0.2239E-02 |
| 3 | 10 | 7 | 3 | 10 | 7 | 4 | | 1503.5363 | 0.0006* | 0.3739E-01 | 3 | 23 | 5 | 18 | | 23 | 5 | 19 | 1504.5081 | | 0.2239E-02 |
| 3 | 27 | 4 | 24 | 27 | 4 | 23 | | 1503.5394 | | 0.1795E-03 | 3 | 15 | 7 | 9 | | 15 | 7 | 8 | 1504.5404 | 0.0008* | 0.1357E-01 |
| 6 | 27 | 9 | 19 | 26 | 8 | 18 | | 1503.5564 | | 0.5838E-03 | 3 | 15 | 7 | 8 | | 15 | 7 | 9 | 1504.5404 | 0.0008* | 0.1357E-01 |
| 6 | 27 | 9 | 18 | 26 | 8 | 19 | | 1503.5584 | | 0.5838E-03 | 3 | 24 | 4 | 20 | | 24 | 4 | 21 | 1504.5757 | | 0.4728E-03 |
| 3 | 25 | 4 | 22 | 25 | 4 | 21 | | 1503.5583 | | 0.3481E-03 | 3 | 11 | 8 | 3 | | 11 | 8 | 4 | 1504.6191 | 0.0003 | 0.7441E-02 |
| 3 | 19 | 5 | 15 | 19 | 5 | 14 | | 1503.5593 | 0.0014 | 0.6648E-02 | 3 | 11 | 8 | 4 | | 11 | 8 | 3 | 1504.6191 | 0.0003 | 0.7441E-02 |
| 3 | 19 | 5 | 14 | 19 | 5 | 15 | | 1503.5743 | -0.0037 | 0.6648E-02 | 3 | 20 | 8 | 15 | | 20 | 8 | 14 | 1504.6941 | | 0.1653E-02 |
| 3 | 28 | 4 | 23 | 26 | 4 | 22 | | 1503.5773 | | 0.2514E-03 | 3 | 20 | 6 | 14 | | 20 | 6 | 15 | 1504.6943 | | 0.1653E-02 |
| 3 | 18 | 3 | 15 | 18 | 3 | 16 | | 1503.5829 | | 0.5328E-02 | 3 | 24 | 5 | 20 | | 24 | 5 | 19 | 1504.7222 | | 0.1666E-02 |
| 3 | 15 | 6 | 9 | 15 | 6 | 10 | | 1503.5906 | 0.0012 | 0.5439E-02 | 3 | 24 | 5 | 19 | | 24 | 5 | 20 | 1504.7728 | | 0.1665E-02 |
| 3 | 15 | 6 | 10 | 15 | 6 | 9 | | 1503.5906 | 0.0012 | 0.5439E-02 | 3 | 18 | 7 | 9 | | 18 | 7 | 10 | 1504.7814 | -0.0007* | 0.1089E-01 |
| 6 | 23 | 5 | 18 | 22 | 2 | 21 | | 1503.7083 | | 0.6626E-04 | 3 | 18 | 7 | 10 | | 18 | 7 | 9 | 1504.7814 | -0.0007* | 0.1089E-01 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|------------|------------|---|----|----|----|---|----|----|----|-----------|------------|------------|
| 3 | 13 | 11 | 3 | | 13 | 11 | 2 | 1504.8178 | | 0.1848E-02 | 3 | 15 | 8 | 8 | | 15 | 8 | 7 | 1505.7520 | -0.0032 | 0.3388E-02 |
| 3 | 13 | 11 | 2 | | 13 | 11 | 3 | 1504.8176 | 0.1648E-02 | 0.1648E-02 | 3 | 28 | 5 | 24 | | 28 | 5 | 23 | 1505.7815 | 0.4603E-03 | 0.4603E-03 |
| 3 | 12 | 8 | 5 | | 12 | 8 | 4 | 1504.8754 | 0.0004 | 0.6152E-02 | 3 | 28 | 7 | 14 | | 28 | 7 | 13 | 1505.7893 | 0.3334E-02 | 0.3334E-02 |
| 3 | 12 | 8 | 4 | | 12 | 8 | 5 | 1504.8764 | 0.0004 | 0.6152E-02 | 3 | 28 | 7 | 13 | | 28 | 7 | 14 | 1505.7893 | 0.3334E-02 | 0.3334E-02 |
| 3 | 18 | 12 | 8 | | 18 | 12 | 7 | 1504.9028 | | 0.7117E-04 | 3 | 24 | 6 | 19 | | 24 | 6 | 18 | 1505.7748 | 0.5467E-03 | 0.5467E-03 |
| 3 | 18 | 12 | 7 | | 18 | 12 | 6 | 1504.9028 | 0.0005 | 0.7117E-04 | 3 | 24 | 6 | 19 | | 24 | 6 | 19 | 1505.7762 | 0.5467E-03 | 0.5467E-03 |
| 3 | 9 | 9 | 1 | | 9 | 9 | 0 | 1504.9155 | 0.0005 | 0.2056E-01 | 3 | 21 | 10 | 12 | | 21 | 10 | 12 | 1505.7784 | 0.9676E-03 | 0.9676E-03 |
| 3 | 9 | 9 | 0 | | 9 | 9 | 1 | 1504.9155 | 0.0005 | 0.2056E-01 | 3 | 21 | 10 | 11 | | 21 | 7 | 15 | 1505.7784 | 0.9676E-03 | 0.9676E-03 |
| 3 | 2 | 1 | 2 | | 1 | 1 | 1 | 1504.9342 | 0.0001 | 0.8987E-01 | 3 | 21 | 3 | 18 | | 21 | 3 | 19 | 1505.8746 | 0.2321E-02 | 0.2321E-02 |
| 3 | 21 | 6 | 16 | | 21 | 6 | 15 | 1504.9484 | | 0.1271E-02 | 3 | 12 | 11 | 1 | | 12 | 11 | 2 | 1505.9019 | 0.2804E-02 | 0.2804E-02 |
| 3 | 25 | 6 | 21 | | 25 | 5 | 20 | 1504.9763 | 0.1271E-02 | 0.1271E-02 | 3 | 12 | 11 | 1 | | 12 | 11 | 1 | 1505.9491 | 0.3240E-02 | 0.3240E-02 |
| 3 | 20 | 3 | 17 | | 26 | 3 | 18 | 1504.9768 | 0.3098E-02 | 0.3098E-02 | 3 | 19 | 10 | 6 | | 19 | 10 | 7 | 1505.9633 | -0.0005* | 0.1005E-01 |
| 3 | 25 | 4 | 21 | | 26 | 4 | 22 | 1505.0305 | 0.3443E-03 | 0.3443E-03 | 3 | 18 | 10 | 6 | | 18 | 10 | 7 | 1505.9833 | -0.0005* | 0.4598E-03 |
| 3 | 17 | 7 | 11 | | 17 | 7 | 10 | 1505.0334 | -0.0036* | 0.8668E-02 | 3 | 28 | 5 | 23 | | 28 | 5 | 24 | 1505.9872 | 0.3249E-03 | 0.3249E-03 |
| 3 | 25 | 5 | 20 | | 26 | 5 | 21 | 1505.0518 | 0.1226E-02 | 0.1226E-02 | 3 | 29 | 5 | 24 | | 29 | 5 | 24 | 1506.9231 | 0.4947E-03 | 0.4947E-03 |
| 3 | 2 | 9 | 2 | | 1 | 9 | 1 | 1505.0533 | 0.3219E-01 | 0.3219E-01 | 3 | 25 | 6 | 26 | | 25 | 6 | 26 | 1506.9730 | 0.2743E-02 | 0.2743E-02 |
| 3 | 7 | 1 | 8 | | 7 | 1 | 7 | 1505.1080 | 0.0002 | 0.9323E-02 | 3 | 25 | 6 | 19 | | 25 | 6 | 20 | 1506.9730 | 0.1005E-01 | 0.1005E-01 |
| 3 | 13 | 8 | 5 | | 13 | 8 | 6 | 1505.1501 | -0.0002 | 0.5067E-02 | 3 | 18 | 8 | 9 | | 18 | 8 | 8 | 1506.9778 | -0.0004R | 0.4598E-03 |
| 3 | 13 | 8 | 6 | | 13 | 8 | 6 | 1505.1501 | -0.0002 | 0.5067E-02 | 3 | 12 | 9 | 4 | | 12 | 9 | 4 | 1506.9929 | 0.3249E-03 | 0.3249E-03 |
| 3 | 22 | 6 | 17 | | 22 | 6 | 18 | 1505.2134 | 0.9886E-03 | 0.9886E-03 | 3 | 12 | 9 | 3 | | 12 | 9 | 4 | 1506.9929 | 0.1219E-01 | 0.1219E-01 |
| 3 | 22 | 6 | 18 | | 22 | 6 | 17 | 1505.2139 | 0.9886E-03 | 0.9886E-03 | 3 | 18 | 12 | 5 | | 18 | 12 | 4 | 1506.9929 | 0.3249E-03 | 0.3249E-03 |
| 3 | 23 | 10 | 14 | | 23 | 7 | 16 | 1505.2356 | 0.8943E-03 | 0.8943E-03 | 3 | 18 | 12 | 4 | | 18 | 12 | 5 | 1506.9929 | 0.1479E-03 | 0.1479E-03 |
| 3 | 18 | 7 | 13 | | 18 | 7 | 17 | 1505.2732 | 0.8521E-04 | 0.8521E-04 | 3 | 27 | 4 | 23 | | 27 | 4 | 24 | 1506.1564 | 0.1792E-03 | 0.1792E-03 |
| 3 | 16 | 9 | 1 | | 16 | 9 | 2 | 1505.2814 | 0.0010 | 0.1729E-01 | 3 | 39 | 5 | 28 | | 39 | 5 | 25 | 1506.2791 | 0.2288E-03 | 0.2288E-03 |
| 3 | 16 | 9 | 2 | | 16 | 9 | 1 | 1505.2814 | 0.0010 | 0.1729E-01 | 3 | 29 | 5 | 24 | | 29 | 5 | 25 | 1506.2791 | 0.1219E-01 | 0.1219E-01 |
| 3 | 2 | 1 | 1 | | 1 | 1 | 1 | 1505.2927 | 0.0001 | 0.8945E-01 | 3 | 20 | 10 | 11 | | 20 | 10 | 11 | 1506.1018 | 0.9044E-03 | 0.9044E-03 |
| 3 | 18 | 7 | 12 | | 18 | 7 | 11 | 1505.2935 | 0.8806E-02 | 0.8806E-02 | 3 | 26 | 8 | 21 | | 26 | 8 | 21 | 1506.3622 | 0.9044E-03 | 0.9044E-03 |
| 3 | 26 | 5 | 21 | | 26 | 5 | 22 | 1505.3457 | 0.8935E-03 | 0.8935E-03 | 3 | 28 | 6 | 20 | | 28 | 6 | 21 | 1506.3799 | 0.2966E-03 | 0.2966E-03 |
| 3 | 28 | 9 | 19 | | 27 | 8 | 20 | 1505.3881 | 0.4467E-03 | 0.4467E-03 | 3 | 21 | 7 | 15 | | 21 | 7 | 14 | 1506.3828 | 0.2304E-02 | 0.2304E-02 |
| 3 | 14 | 8 | 7 | | 14 | 8 | 6 | 1505.3881 | -0.0014 | 0.4154E-02 | 3 | 17 | 8 | 9 | | 17 | 8 | 9 | 1506.3828 | 0.2304E-02 | 0.2304E-02 |
| 3 | 14 | 8 | 7 | | 14 | 8 | 6 | 1505.4426 | -0.0014 | 0.4154E-02 | 3 | 20 | 10 | 20 | | 20 | 10 | 20 | 1506.3828 | 0.2206E-02 | 0.2206E-02 |
| 3 | 23 | 6 | 18 | | 23 | 6 | 17 | 1505.5201 | 0.7312E-03 | 0.7312E-03 | 3 | 17 | 8 | 10 | | 17 | 8 | 10 | 1506.4189 | 0.2966E-03 | 0.2966E-03 |
| 3 | 23 | 6 | 17 | | 23 | 6 | 18 | 1505.5201 | 0.7312E-03 | 0.7312E-03 | 3 | 21 | 7 | 15 | | 21 | 7 | 14 | 1506.3799 | 0.2966E-03 | 0.2966E-03 |
| 3 | 27 | 5 | 23 | | 27 | 5 | 22 | 1505.4980 | 0.6451E-03 | 0.6451E-03 | 3 | 13 | 9 | 4 | | 13 | 9 | 5 | 1506.3828 | 0.1018E-01 | 0.1018E-01 |
| 3 | 17 | 12 | 5 | | 17 | 12 | 6 | 1505.5121 | 0.1034E-03 | 0.1034E-03 | 3 | 19 | 10 | 10 | | 19 | 7 | 12 | 1506.4189 | 0.2271E-02 | 0.2271E-02 |
| 3 | 17 | 12 | 6 | | 17 | 12 | 5 | 1505.5121 | 0.1034E-03 | 0.1034E-03 | 3 | 15 | 12 | 3 | | 15 | 12 | 4 | 1506.4189 | 0.2557E-03 | 0.2557E-03 |
| 3 | 14 | 7 | 12 | | 14 | 7 | 13 | 1505.5524 | -0.0242* | 0.2271E-02 | 3 | 20 | 13 | 7 | | 20 | 13 | 7 | 1506.5515 | 0.7534E-04 | 0.7534E-04 |
| 3 | 19 | 7 | 13 | | 19 | 7 | 12 | 1505.5524 | -0.0242* | 0.2271E-02 | 3 | 22 | 7 | 16 | | 22 | 7 | 15 | 1506.5328 | 0.1018E-01 | 0.1018E-01 |
| 3 | 28 | 4 | 22 | | 28 | 4 | 23 | 1505.5535 | 0.2477E-03 | 0.2477E-03 | 3 | 19 | 10 | 19 | | 19 | 10 | 19 | 1506.5454 | 0.2557E-03 | 0.2557E-03 |
| 3 | 22 | 10 | 13 | | 22 | 7 | 18 | 1505.5618 | 0.2345E-03 | 0.2345E-03 | 3 | 20 | 13 | 7 | | 20 | 13 | 7 | 1506.5454 | 0.2085E-03 | 0.2085E-03 |
| 3 | 22 | 7 | 15 | | 22 | 7 | 16 | 1505.5618 | 0.2345E-03 | 0.2345E-03 | 3 | 15 | 12 | 4 | | 15 | 12 | 3 | 1506.5454 | 0.8334E-04 | 0.8334E-04 |
| 3 | 27 | 5 | 23 | | 27 | 5 | 23 | 1505.6743 | 0.0007 | 0.1453E-01 | 3 | 27 | 8 | 21 | | 27 | 8 | 21 | 1506.6919 | 0.2152E-03 | 0.2152E-03 |
| 3 | 11 | 9 | 2 | | 11 | 9 | 3 | 1505.6743 | 0.0007 | 0.1453E-01 | 3 | 30 | 5 | 25 | | 30 | 5 | 26 | 1506.6919 | 0.2152E-03 | 0.2152E-03 |
| 3 | 11 | 9 | 3 | | 11 | 9 | 2 | 1505.6743 | 0.0007 | 0.1453E-01 | 3 | 18 | 10 | 8 | | 18 | 10 | 8 | 1506.7167 | 0.1038E-03 | 0.1038E-03 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 4 | 18 | 10 | 9 | | 18 | 7 | 11 | 1508.7872 | | 0.1038E-03 | 3 | 17 | 13 | 4 | | 17 | 13 | 5 | 1507.9236 | | 0.1754E-03 |
| 3 | 18 | 8 | 11 | | 18 | 8 | 10 | 1508.7753 | | 0.1780E-02 | 3 | 17 | 13 | 5 | | 17 | 13 | 4 | 1507.9236 | | 0.1754E-03 |
| 3 | 18 | 8 | 10 | | 18 | 8 | 11 | 1508.7753 | | 0.1780E-02 | 3 | 21 | 8 | 13 | | 21 | 8 | 14 | 1507.9268 | | 0.8499E-03 |
| 3 | 15 | 2 | 13 | | 15 | 2 | 14 | 1508.7998 | | 0.1782E-02 | 3 | 21 | 8 | 14 | | 21 | 8 | 13 | 1507.9268 | | 0.8499E-03 |
| 6 | 24 | 5 | 19 | | 23 | 2 | 22 | 1508.8141 | | 0.8283E-04 | 3 | 16 | 9 | 8 | | 16 | 9 | 7 | 1507.9738 | 0.0004 | 0.5714E-02 |
| 3 | 28 | 4 | 24 | | 28 | 4 | 25 | 1508.8521 | | 0.1235E-03 | 3 | 16 | 9 | 7 | | 16 | 9 | 8 | 1507.9738 | 0.0004 | 0.5714E-02 |
| 3 | 22 | 3 | 19 | | 22 | 3 | 20 | 1508.9280 | | 0.1717E-02 | 3 | 26 | 7 | 20 | | 26 | 7 | 19 | 1507.9738 | | 0.7714E-03 |
| 3 | 23 | 7 | 17 | | 23 | 7 | 18 | 1508.9315 | | 0.1815E-02 | 3 | 26 | 7 | 19 | | 26 | 7 | 20 | 1507.9739 | | 0.7714E-03 |
| 3 | 23 | 7 | 16 | | 23 | 7 | 17 | 1508.9315 | | 0.1815E-02 | 3 | 9 | 1 | 8 | | 9 | 1 | 9 | 1508.0368 | 0.0002 | 0.8114E-02 |
| 4 | 17 | 10 | 7 | | 17 | 7 | 11 | 1508.9874 | | 0.5182E-04 | 3 | 23 | 3 | 20 | | 23 | 3 | 21 | 1508.1439 | | 0.1255E-02 |
| 4 | 17 | 10 | 8 | | 17 | 7 | 10 | 1508.9874 | | 0.5182E-04 | 3 | 12 | 10 | 3 | | 12 | 10 | 2 | 1508.1875 | | 0.2398E-02 |
| 3 | 14 | 9 | 5 | | 14 | 9 | 8 | 1508.9943 | 0.0012 | 0.8452E-02 | 3 | 12 | 10 | 2 | | 12 | 10 | 3 | 1508.1875 | | 0.2398E-02 |
| 3 | 14 | 9 | 6 | | 14 | 9 | 5 | 1508.9943 | 0.0012 | 0.8452E-02 | 3 | 12 | 12 | 8 | | 12 | 12 | 1 | 1508.2322 | | 0.5407E-03 |
| 3 | 28 | 6 | 23 | | 28 | 6 | 22 | 1507.0149 | | 0.1545E-03 | 3 | 12 | 12 | 1 | | 12 | 12 | 0 | 1508.2322 | | 0.5407E-03 |
| 3 | 28 | 6 | 22 | | 28 | 6 | 23 | 1507.0238 | | 0.1545E-03 | 3 | 16 | 2 | 14 | | 16 | 2 | 15 | 1508.2540 | | 0.1374E-02 |
| 3 | 19 | 13 | 7 | | 19 | 13 | 8 | 1507.0288 | | 0.9013E-04 | 3 | 22 | 8 | 15 | | 22 | 8 | 14 | 1508.3352 | | 0.8546E-03 |
| 3 | 19 | 13 | 6 | | 19 | 13 | 7 | 1507.0288 | | 0.9013E-04 | 3 | 22 | 8 | 14 | | 22 | 8 | 15 | 1508.3352 | | 0.8546E-03 |
| 3 | 11 | 11 | 1 | | 11 | 11 | 0 | 1507.0580 | | 0.4165E-02 | 3 | 16 | 13 | 3 | | 16 | 13 | 4 | 1508.3402 | | 0.2401E-03 |
| 3 | 11 | 11 | 0 | | 11 | 11 | 1 | 1507.0580 | | 0.4165E-02 | 3 | 16 | 13 | 4 | | 16 | 13 | 3 | 1508.3402 | | 0.2401E-03 |
| 3 | 11 | 10 | 1 | | 11 | 10 | 2 | 1507.1198 | | 0.2787E-02 | 3 | 27 | 7 | 21 | | 27 | 7 | 20 | 1508.3464 | | 0.5841E-03 |
| 3 | 11 | 10 | 2 | | 11 | 10 | 1 | 1507.1198 | | 0.2787E-02 | 3 | 27 | 7 | 20 | | 27 | 7 | 21 | 1508.3466 | | 0.5841E-03 |
| 3 | 19 | 8 | 12 | | 19 | 8 | 11 | 1507.1459 | | 0.1393E-02 | 3 | 17 | 9 | 9 | | 17 | 9 | 8 | 1508.4880 | 0.0009 | 0.4645E-02 |
| 3 | 19 | 8 | 11 | | 19 | 8 | 12 | 1507.1459 | | 0.1393E-02 | 3 | 17 | 9 | 8 | | 17 | 9 | 9 | 1508.4880 | 0.0009 | 0.4645E-02 |
| 8 | 29 | 9 | 21 | | 28 | 8 | 20 | 1507.2047 | | 0.3288E-03 | 3 | 30 | 4 | 26 | | 30 | 4 | 27 | 1508.5788 | | 0.5833E-04 |
| 8 | 29 | 9 | 20 | | 28 | 8 | 21 | 1507.2047 | | 0.3288E-03 | 3 | 28 | 7 | 22 | | 28 | 7 | 21 | 1508.7294 | | 0.4078E-03 |
| 3 | 14 | 12 | 2 | | 14 | 12 | 3 | 1507.2155 | | 0.2900E-03 | 3 | 28 | 7 | 21 | | 28 | 7 | 22 | 1508.7296 | | 0.4078E-03 |
| 3 | 14 | 12 | 3 | | 14 | 12 | 2 | 1507.2155 | | 0.2900E-03 | 3 | 15 | 13 | 2 | | 15 | 13 | 3 | 1508.7356 | | 0.3249E-03 |
| 3 | 24 | 7 | 17 | | 24 | 7 | 18 | 1507.2840 | | 0.1389E-02 | 3 | 15 | 13 | 3 | | 15 | 13 | 2 | 1508.7356 | | 0.3249E-03 |
| 3 | 24 | 7 | 18 | | 24 | 7 | 17 | 1507.2840 | | 0.1389E-02 | 3 | 23 | 8 | 15 | | 23 | 8 | 16 | 1508.7551 | | 0.4994E-03 |
| 3 | 3 | 1 | 3 | | 2 | 1 | 2 | 1507.2859 | 0.0008 | 0.1205E+00 | 3 | 23 | 8 | 16 | | 23 | 8 | 15 | 1508.7551 | | 0.4994E-03 |
| 3 | 29 | 6 | 24 | | 29 | 6 | 23 | 1507.3472 | | 0.1097E-03 | 6 | 30 | 9 | 21 | | 29 | 8 | 22 | 1509.0067 | | 0.2419E-03 |
| 3 | 29 | 6 | 23 | | 29 | 6 | 24 | 1507.3607 | | 0.1097E-03 | 6 | 30 | 9 | 22 | | 29 | 8 | 21 | 1509.0067 | | 0.2419E-03 |
| 3 | 15 | 9 | 7 | | 15 | 9 | 6 | 1507.4752 | 0.0012 | 0.6975E-02 | 3 | 18 | 9 | 9 | | 18 | 9 | 10 | 1509.0167 | 0.0003 | 0.3743E-02 |
| 3 | 15 | 9 | 6 | | 15 | 9 | 7 | 1507.4752 | 0.0012 | 0.6975E-02 | 3 | 18 | 9 | 10 | | 18 | 9 | 9 | 1509.0167 | 0.0003 | 0.3743E-02 |
| 3 | 18 | 13 | 6 | | 18 | 13 | 5 | 1507.4863 | | 0.1266E-03 | 3 | 14 | 13 | 1 | | 14 | 13 | 2 | 1509.1094 | | 0.4347E-03 |
| 3 | 18 | 13 | 5 | | 18 | 13 | 6 | 1507.4863 | | 0.1266E-03 | 3 | 14 | 13 | 2 | | 14 | 13 | 1 | 1509.1094 | | 0.4347E-03 |
| 3 | 3 | 0 | 3 | | 2 | 0 | 2 | 1507.4967 | -0.0001 | 0.4691E-01 | 3 | 29 | 7 | 23 | | 29 | 7 | 22 | 1509.1219 | | 0.2915E-03 |
| 3 | 20 | 8 | 12 | | 20 | 8 | 13 | 1507.5298 | | 0.1093E-02 | 3 | 29 | 7 | 22 | | 29 | 7 | 23 | 1509.1223 | | 0.2915E-03 |
| 3 | 20 | 8 | 13 | | 20 | 8 | 12 | 1507.5298 | | 0.1093E-02 | 3 | 24 | 8 | 16 | | 24 | 8 | 17 | 1509.1855 | | 0.3771E-03 |
| 3 | 25 | 7 | 19 | | 25 | 7 | 18 | 1507.6125 | | 0.1042E-02 | 3 | 24 | 8 | 17 | | 24 | 8 | 16 | 1509.1855 | | 0.3771E-03 |
| 3 | 25 | 7 | 18 | | 25 | 7 | 19 | 1507.6125 | | 0.1042E-02 | 3 | 13 | 10 | 4 | | 13 | 10 | 3 | 1509.1906 | | 0.2047E-02 |
| 3 | 29 | 4 | 25 | | 29 | 4 | 26 | 1507.6641 | | 0.8548E-04 | 3 | 13 | 10 | 3 | | 13 | 10 | 4 | 1509.1906 | | 0.2047E-02 |
| 3 | 30 | 6 | 25 | | 30 | 6 | 24 | 1507.6874 | | 0.7712E-04 | 3 | 13 | 13 | 0 | | 13 | 13 | 1 | 1509.4809 | | 0.5756E-03 |
| 3 | 30 | 6 | 24 | | 30 | 6 | 25 | 1507.7074 | | 0.7710E-04 | 3 | 13 | 13 | 1 | | 13 | 13 | 0 | 1509.4809 | | 0.5756E-03 |
| 3 | 13 | 12 | 1 | | 13 | 12 | 2 | 1507.7368 | | 0.3984E-03 | 3 | 30 | 7 | 24 | | 30 | 7 | 23 | 1509.5234 | | 0.2061E-03 |
| 3 | 13 | 12 | 2 | | 13 | 12 | 1 | 1507.7368 | | 0.3984E-03 | 3 | 30 | 7 | 23 | | 30 | 7 | 24 | 1509.5240 | | 0.2061E-03 |
| 3 | 3 | 2 | 2 | | 2 | 2 | 1 | 1507.7372 | 0.0001 | 0.2215E-01 | 3 | 24 | 3 | 21 | | 24 | 3 | 22 | 1509.5389 | | 0.9062E-03 |
| 3 | 3 | 2 | 1 | | 2 | 2 | 0 | 1507.7485 | 0.0001 | 0.2215E-01 | 3 | 19 | 9 | 10 | | 19 | 9 | 11 | 1509.5583 | -0.0003 | 0.2989E-02 |
| 6 | 17 | 10 | 8 | | 16 | 9 | 7 | 1507.8031 | -0.0022* | 0.8800E-02 | 3 | 19 | 9 | 11 | | 19 | 9 | 10 | 1509.5583 | -0.0003 | 0.2989E-02 |
| 6 | 17 | 10 | 7 | | 16 | 9 | 8 | 1507.8031 | -0.0022* | 0.8800E-02 | 6 | 18 | 10 | 9 | | 17 | 9 | 8 | 1509.6233 | 0.0018* | 0.7598E-02 |
| 3 | 3 | 1 | 2 | | 2 | 1 | 1 | 1507.8418 | 0.0001 | 0.1198E+00 | 6 | 18 | 10 | 8 | | 17 | 9 | 9 | 1509.6233 | 0.0018* | 0.7598E-02 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 3 | 25 | 8 | 18 | | 25 | 8 | 17 | 1509.6255 | | 0.2819E-03 | 3 | 17 | 10 | 8 | | 17 | 10 | 7 | 1512.8495 | | 0.9973E-03 |
| 3 | 25 | 8 | 17 | | 25 | 8 | 18 | 1509.6255 | | 0.2819E-03 | 3 | 17 | 10 | 7 | | 17 | 10 | 8 | 1512.8495 | | 0.9973E-03 |
| 3 | 4 | 1 | 4 | | 3 | 1 | 3 | 1509.6368 | 0.0000 | 0.1629E+00 | 3 | 26 | 3 | 23 | | 26 | 3 | 24 | 1512.8885 | 0.0004 | 0.4557E-03 |
| 3 | 10 | 1 | 9 | | 10 | 1 | 10 | 1509.7465 | 0.0004 | 0.4970E-02 | 3 | 5 | 3 | 3 | | 4 | 3 | 2 | 1512.9819 | -0.0002 | 0.9467E-01 |
| 3 | 17 | 2 | 15 | | 17 | 2 | 16 | 1509.8890 | | 0.1052E-02 | 3 | 5 | 3 | 2 | | 4 | 3 | 1 | 1512.9825 | 0.0000 | 0.1955E+00 |
| 3 | 4 | 0 | 4 | | 3 | 0 | 3 | 1509.9381 | 0.0001 | 0.8004E-01 | 3 | 6 | 1 | 4 | | 4 | 1 | 3 | 1512.9719 | 0.0000 | 0.8283E-03 |
| 3 | 25 | 5 | 20 | | 24 | 2 | 23 | 1510.0277 | | 0.5830E-04 | 3 | 25 | 9 | 17 | | 25 | 9 | 16 | 1513.0107 | | 0.6283E-03 |
| 3 | 28 | 8 | 18 | | 26 | 8 | 19 | 1510.0743 | | 0.2086E-03 | 6 | 20 | 10 | 10 | | 19 | 9 | 11 | 1513.2094 | 0.0147* | 0.5430E-02 |
| 3 | 20 | 9 | 11 | | 26 | 9 | 12 | 1510.1116 | | 0.2384E-02 | 6 | 20 | 10 | 11 | | 19 | 9 | 10 | 1513.2094 | 0.0147* | 0.5430E-02 |
| 3 | 20 | 9 | 12 | | 26 | 9 | 11 | 1510.1116 | | 0.2384E-02 | 3 | 5 | 4 | 1 | | 4 | 4 | 0 | 1513.3514 | 0.0001 | 0.1332E-01 |
| 3 | 14 | 10 | 5 | | 14 | 10 | 4 | 1510.1484 | | 0.1735E-02 | 3 | 5 | 4 | 2 | | 4 | 4 | 1 | 1513.3514 | 0.0001 | 0.1332E-01 |
| 3 | 14 | 10 | 4 | | 14 | 10 | 5 | 1510.1484 | | 0.1735E-02 | 6 | 26 | 5 | 21 | | 25 | 2 | 24 | 1513.3572 | | 0.5296E-04 |
| 3 | 4 | 2 | 3 | | 3 | 2 | 2 | 1510.1958 | 0.0002 | 0.3827E-01 | 3 | 26 | 9 | 18 | | 26 | 9 | 17 | 1513.6099 | | 0.4668E-03 |
| 3 | 4 | 2 | 2 | | 3 | 2 | 1 | 1510.2244 | 0.0001 | 0.3826E-01 | 3 | 26 | 9 | 17 | | 26 | 9 | 18 | 1513.6099 | | 0.4668E-03 |
| 3 | 4 | 1 | 3 | | 3 | 1 | 2 | 1510.4019 | 0.0001 | 0.1614E+00 | 3 | 12 | 1 | 11 | | 12 | 1 | 12 | 1513.6302 | | 0.3277E-02 |
| 3 | 4 | 3 | 2 | | 3 | 3 | 1 | 1510.4873 | 0.0002 | 0.5461E-01 | 3 | 19 | 2 | 17 | | 19 | 2 | 18 | 1513.8917 | | 0.6023E-03 |
| 3 | 4 | 3 | 1 | | 3 | 3 | 0 | 1510.4875 | 0.0000 | 0.5461E-01 | 3 | 18 | 10 | 8 | | 18 | 10 | 9 | 1513.7103 | | 0.8122E-03 |
| 3 | 27 | 8 | 19 | | 27 | 8 | 20 | 1510.5315 | | 0.1526E-03 | 3 | 18 | 10 | 9 | | 18 | 10 | 8 | 1513.7103 | | 0.8122E-03 |
| 3 | 27 | 8 | 20 | | 27 | 8 | 19 | 1510.5315 | | 0.1526E-03 | 3 | 27 | 9 | 19 | | 27 | 9 | 18 | 1514.2134 | | 0.3429E-03 |
| 3 | 21 | 9 | 13 | | 21 | 9 | 12 | 1510.6752 | | 0.1852E-02 | 3 | 27 | 9 | 18 | | 27 | 9 | 19 | 1514.2134 | | 0.3429E-03 |
| 3 | 21 | 9 | 12 | | 21 | 9 | 13 | 1510.6752 | | 0.1852E-02 | 3 | 6 | 1 | 6 | | 5 | 1 | 5 | 1514.3323 | 0.0000 | 0.2265E+00 |
| 3 | 14 | 14 | 1 | | 14 | 14 | 0 | 1510.7323 | | 0.8215E-04 | 3 | 19 | 10 | 9 | | 19 | 10 | 10 | 1514.5563 | | 0.8543E-03 |
| 3 | 14 | 14 | 0 | | 14 | 14 | 1 | 1510.7323 | | 0.8215E-04 | 3 | 19 | 10 | 10 | | 19 | 10 | 9 | 1514.5563 | | 0.8543E-03 |
| 3 | 28 | 8 | 21 | | 28 | 8 | 20 | 1510.9958 | | 0.1105E-03 | 3 | 6 | 0 | 6 | | 5 | 0 | 5 | 1514.8000 | 0.0001 | 0.8014E-01 |
| 3 | 28 | 8 | 20 | | 28 | 8 | 21 | 1510.9958 | | 0.1105E-03 | 3 | 28 | 9 | 20 | | 28 | 9 | 19 | 1514.8203 | | 0.2491E-03 |
| 3 | 15 | 10 | 5 | | 15 | 10 | 6 | 1511.0729 | | 0.1457E-02 | 3 | 28 | 9 | 19 | | 28 | 9 | 20 | 1514.8203 | | 0.2491E-03 |
| 3 | 15 | 10 | 6 | | 15 | 10 | 5 | 1511.0729 | | 0.1457E-02 | 3 | 27 | 3 | 24 | | 27 | 3 | 25 | 1514.8499 | | 0.3178E-03 |
| 3 | 25 | 3 | 22 | | 25 | 3 | 23 | 1511.1189 | | 0.8484E-03 | 6 | 21 | 10 | 12 | | 20 | 9 | 11 | 1514.9773 | 0.0216* | 0.4498E-02 |
| 3 | 22 | 9 | 13 | | 22 | 9 | 14 | 1511.2480 | | 0.1436E-02 | 6 | 21 | 10 | 11 | | 20 | 9 | 12 | 1514.9773 | 0.0216* | 0.4498E-02 |
| 3 | 22 | 9 | 14 | | 22 | 9 | 13 | 1511.2480 | | 0.1436E-02 | 3 | 6 | 2 | 5 | | 5 | 2 | 4 | 1515.1279 | 0.0000 | 0.6049E-01 |
| 6 | 19 | 10 | 10 | | 18 | 9 | 9 | 1511.4249 | 0.00086* | 0.6467E-02 | 3 | 26 | 10 | 10 | | 20 | 10 | 11 | 1515.2344 | 0.0000 | 0.6041E-01 |
| 6 | 19 | 10 | 9 | | 18 | 9 | 10 | 1511.4249 | 0.00086* | 0.6467E-02 | 3 | 6 | 2 | 4 | | 5 | 2 | 3 | 1515.3898 | | 0.5213E-03 |
| 3 | 29 | 8 | 22 | | 29 | 8 | 21 | 1511.4667 | | 0.7916E-04 | 3 | 26 | 10 | 11 | | 20 | 10 | 10 | 1515.3898 | | 0.5213E-03 |
| 3 | 29 | 8 | 21 | | 29 | 8 | 22 | 1511.4667 | | 0.7916E-04 | 3 | 29 | 9 | 20 | | 29 | 9 | 21 | 1515.4301 | | 0.1789E-03 |
| 3 | 11 | 1 | 10 | | 11 | 1 | 11 | 1511.8132 | 0.0004 | 0.4039E-02 | 3 | 29 | 9 | 21 | | 29 | 9 | 20 | 1515.4301 | | 0.1789E-03 |
| 3 | 18 | 2 | 18 | | 18 | 2 | 17 | 1511.7028 | | 0.7989E-03 | 3 | 6 | 3 | 4 | | 5 | 3 | 3 | 1515.4465 | 0.0010 | 0.1247E+00 |
| 3 | 23 | 9 | 14 | | 23 | 9 | 15 | 1511.8289 | | 0.1102E-02 | 3 | 6 | 3 | 3 | | 5 | 3 | 2 | 1515.4481 | -0.0007 | 0.1247E+00 |
| 3 | 23 | 9 | 15 | | 23 | 9 | 14 | 1511.8289 | | 0.1102E-02 | 3 | 6 | 1 | 5 | | 5 | 1 | 4 | 1515.5505 | 0.0001 | 0.2222E+00 |
| 3 | 30 | 8 | 22 | | 30 | 8 | 23 | 1511.9434 | | 0.5606E-04 | 3 | 13 | 1 | 12 | | 13 | 1 | 13 | 1515.7902 | | 0.2653E-02 |
| 3 | 30 | 8 | 23 | | 30 | 8 | 22 | 1511.9434 | | 0.5606E-04 | 3 | 6 | 4 | 3 | | 5 | 4 | 2 | 1515.8383 | 0.0001 | 0.2309E-01 |
| 3 | 16 | 10 | 6 | | 16 | 10 | 7 | 1511.9718 | | 0.1212E-02 | 3 | 6 | 4 | 2 | | 5 | 4 | 1 | 1515.8383 | 0.0001 | 0.2309E-01 |
| 3 | 16 | 10 | 7 | | 16 | 10 | 6 | 1511.9718 | | 0.1212E-02 | 3 | 20 | 2 | 18 | | 20 | 2 | 19 | 1515.8499 | | 0.4509E-03 |
| 3 | 5 | 1 | 5 | | 4 | 1 | 4 | 1511.9858 | 0.0001 | 0.1983E+00 | 3 | 30 | 9 | 21 | | 30 | 9 | 22 | 1516.0416 | | 0.1271E-03 |
| 3 | 15 | 15 | 0 | | 15 | 15 | 1 | 1512.0336 | | 0.5523E-04 | 3 | 30 | 9 | 22 | | 30 | 9 | 21 | 1516.0416 | | 0.1271E-03 |
| 3 | 15 | 15 | 1 | | 15 | 15 | 0 | 1512.0336 | | 0.5523E-04 | 3 | 21 | 10 | 11 | | 21 | 10 | 12 | 1516.2118 | | 0.4107E-03 |
| 3 | 5 | 0 | 5 | | 4 | 0 | 4 | 1512.3739 | 0.0001 | 0.7121E-01 | 3 | 21 | 10 | 12 | | 21 | 10 | 11 | 1516.2118 | | 0.4107E-03 |
| 3 | 24 | 9 | 15 | | 24 | 9 | 18 | 1512.4167 | | 0.8366E-03 | 3 | 6 | 5 | 1 | | 5 | 5 | 0 | 1516.3328 | -0.0001 | 0.2825E-01 |
| 3 | 24 | 9 | 16 | | 24 | 9 | 15 | 1512.4167 | | 0.8366E-03 | 3 | 6 | 5 | 2 | | 5 | 5 | 1 | 1516.3328 | -0.0001 | 0.2825E-01 |
| 3 | 5 | 2 | 4 | | 4 | 2 | 3 | 1512.6593 | 0.0000 | 0.5082E-01 | 3 | 7 | 1 | 7 | | 8 | 1 | 6 | 1516.8750 | -0.0001 | 0.2475E+00 |
| 3 | 5 | 2 | 3 | | 4 | 2 | 2 | 1512.7188 | 0.0001 | 0.5078E-01 | 6 | 22 | 10 | 12 | | 21 | 9 | 13 | 1516.7300 | 0.0286* | 0.3675E-02 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|------------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 6 | 22 | 10 | 13 | | 21 | 9 | 12 | 1516.7300 | 0.0288* | 0.3875E-02 | 6 | 8 | 6 | 3 | | 7 | 3 | 4 | 1521.6588 | | 0.7366E-04 |
| 3 | 28 | 3 | 25 | | 28 | 3 | 26 | 1517.0015 | 0.2190E-03 | | 6 | 8 | 6 | 2 | | 7 | 3 | 5 | 1521.6636 | | 0.7196E-04 |
| 3 | 22 | 10 | 12 | | 22 | 10 | 13 | 1517.0237 | 0.3200E-03 | | 6 | 13 | 12 | 2 | | 13 | 11 | 3 | 1521.6702 | | 0.1368E-02 |
| 3 | 22 | 10 | 13 | | 22 | 10 | 12 | 1517.0237 | 0.3200E-03 | | 6 | 13 | 12 | 1 | | 13 | 11 | 2 | 1521.6702 | | 0.1368E-02 |
| 3 | 7 | 0 | 7 | | 6 | 0 | 6 | 1517.2128 | -0.0001 | 0.8666E-01 | 3 | 28 | 10 | 18 | | 28 | 10 | 19 | 1521.7162 | | 0.5825E-04 |
| 3 | 7 | 2 | 6 | | 6 | 2 | 5 | 1517.8003 | 0.0000 | 0.8754E-01 | 3 | 28 | 10 | 19 | | 28 | 10 | 18 | 1521.7162 | | 0.5825E-04 |
| 3 | 7 | 2 | 5 | | 6 | 2 | 4 | 1517.7744 | 0.0001 | 0.8740E-01 | 3 | 30 | 3 | 27 | | 30 | 3 | 28 | 1521.8588 | | 0.1010E-03 |
| 3 | 23 | 10 | 13 | | 23 | 10 | 14 | 1517.8282 | | 0.2485E-03 | 6 | 12 | 11 | 2 | | 11 | 10 | 1 | 1521.8627 | | 0.2734E-02 |
| 3 | 23 | 10 | 14 | | 23 | 10 | 13 | 1517.8282 | | 0.2485E-03 | 6 | 12 | 11 | 1 | | 11 | 10 | 2 | 1521.8627 | | 0.2734E-02 |
| 3 | 7 | 3 | 5 | | 6 | 3 | 4 | 1517.9410 | 0.0018 | 0.1486E+00 | 6 | 25 | 10 | 16 | | 24 | 9 | 15 | 1521.9039 | | 0.1850E-02 |
| 3 | 7 | 3 | 4 | | 6 | 3 | 3 | 1517.9448 | -0.0022R | 0.1466E+00 | 6 | 25 | 10 | 15 | | 24 | 9 | 16 | 1521.9039 | | 0.1850E-02 |
| 3 | 14 | 1 | 13 | | 14 | 1 | 14 | 1518.0838 | | 0.2142E-02 | 3 | 8 | 6 | 2 | | 7 | 6 | 1 | 1521.9569 | 0.0001 | 0.8860E-02 |
| 3 | 7 | 1 | 8 | | 6 | 1 | 5 | 1518.1382 | -0.0001 | 0.2413E+00 | 3 | 8 | 6 | 3 | | 7 | 6 | 2 | 1521.9569 | 0.0001 | 0.8860E-02 |
| 3 | 21 | 2 | 19 | | 21 | 2 | 20 | 1518.1899 | | 0.3352E-03 | 3 | 9 | 0 | 9 | | 8 | 0 | 8 | 1521.9833 | | 0.9249E-01 |
| 3 | 7 | 4 | 4 | | 6 | 4 | 3 | 1518.3351 | 0.0001 | 0.3021E-01 | 3 | 9 | 2 | 8 | | 8 | 2 | 7 | 1522.5537 | | 0.7446E-01 |
| 3 | 7 | 4 | 3 | | 6 | 4 | 2 | 1518.3352 | 0.0001 | 0.3021E-01 | 6 | 14 | 12 | 2 | | 14 | 11 | 3 | 1522.6383 | | 0.1505E-02 |
| 6 | 23 | 10 | 14 | | 22 | 9 | 13 | 1518.4681 | 0.0363* | 0.2963E-02 | 6 | 14 | 12 | 3 | | 14 | 11 | 4 | 1522.6383 | | 0.1505E-02 |
| 6 | 23 | 10 | 13 | | 22 | 9 | 14 | 1518.4681 | 0.0363* | 0.2963E-02 | 3 | 8 | 7 | 1 | | 7 | 7 | 0 | 1522.6414 | -0.0001* | 0.8107E-02 |
| 3 | 24 | 10 | 15 | | 24 | 10 | 14 | 1518.8200 | | 0.1877E-03 | 3 | 8 | 7 | 2 | | 7 | 7 | 1 | 1522.8414 | -0.0001* | 0.8107E-02 |
| 3 | 24 | 10 | 14 | | 24 | 10 | 15 | 1518.8200 | | 0.1877E-03 | 3 | 9 | 2 | 7 | | 8 | 2 | 6 | 1522.9375 | 0.0001 | 0.7409E-01 |
| 3 | 7 | 5 | 3 | | 6 | 5 | 2 | 1518.8381 | 0.0000 | 0.4536E-01 | 3 | 9 | 3 | 7 | | 8 | 3 | 6 | 1522.9592 | -0.0001 | 0.1894E+00 |
| 3 | 7 | 5 | 2 | | 6 | 5 | 1 | 1518.8381 | 0.0000 | 0.4536E-01 | 3 | 9 | 3 | 6 | | 8 | 3 | 5 | 1522.9735 | -0.0001 | 0.1894E+00 |
| 3 | 8 | 1 | 8 | | 7 | 1 | 7 | 1519.0134 | 0.0001 | 0.2612E+00 | 3 | 16 | 1 | 15 | | 16 | 1 | 16 | 1523.0248 | | 0.1380E-02 |
| 3 | 29 | 3 | 26 | | 29 | 3 | 27 | 1519.3398 | | 0.1494E-03 | 6 | 13 | 11 | 3 | | 12 | 10 | 2 | 1523.2231 | | 0.2592E-02 |
| 3 | 25 | 10 | 16 | | 25 | 10 | 15 | 1519.4055 | | 0.1413E-03 | 6 | 13 | 11 | 2 | | 12 | 10 | 3 | 1523.2231 | | 0.2592E-02 |
| 3 | 25 | 10 | 15 | | 25 | 10 | 16 | 1519.4055 | | 0.1413E-03 | 3 | 23 | 2 | 21 | | 23 | 2 | 22 | 1523.2606 | | 0.1816E-03 |
| 3 | 7 | 8 | 2 | | 6 | 6 | 1 | 1519.4290 | 0.0000 | 0.5158E-02 | 3 | 9 | 1 | 6 | | 8 | 1 | 7 | 1523.3219 | 0.0001 | 0.2575E+00 |
| 3 | 7 | 8 | 1 | | 6 | 6 | 0 | 1519.4290 | 0.0000 | 0.5158E-02 | 3 | 9 | 4 | 6 | | 8 | 4 | 5 | 1523.3604 | 0.0000 | 0.3823E-01 |
| 3 | 8 | 0 | 8 | | 7 | 0 | 7 | 1519.8082 | 0.0001 | 0.9075E-01 | 3 | 9 | 4 | 5 | | 8 | 4 | 4 | 1523.3606 | -0.0002 | 0.3823E-01 |
| 3 | 8 | 2 | 7 | | 7 | 2 | 6 | 1520.0760 | 0.0001 | 0.7214E-01 | 8 | 15 | 12 | 3 | | 15 | 11 | 4 | 1523.5884 | | 0.1484E-02 |
| 3 | 28 | 10 | 18 | | 28 | 10 | 17 | 1520.1833 | | 0.1052E-03 | 8 | 15 | 12 | 4 | | 15 | 11 | 5 | 1523.5884 | | 0.1484E-02 |
| 3 | 28 | 10 | 17 | | 28 | 10 | 18 | 1520.1833 | | 0.1052E-03 | 8 | 26 | 10 | 17 | | 25 | 9 | 18 | 1523.8029 | | 0.1433E-02 |
| 8 | 24 | 10 | 15 | | 23 | 9 | 14 | 1520.1928 | 0.0449* | 0.2357E-02 | 8 | 26 | 10 | 16 | | 25 | 9 | 17 | 1523.8029 | | 0.1433E-02 |
| 8 | 24 | 10 | 14 | | 23 | 9 | 15 | 1520.1928 | 0.0449* | 0.2357E-02 | 3 | 10 | 1 | 10 | | 9 | 1 | 9 | 1523.8732 | 0.0000 | 0.2680E+00 |
| 3 | 8 | 2 | 6 | | 7 | 2 | 5 | 1520.3414 | 0.0000 | 0.7190E-01 | 3 | 9 | 5 | 4 | | 8 | 5 | 3 | 1523.8759 | 0.0000 | 0.6785E-01 |
| 3 | 8 | 3 | 6 | | 7 | 3 | 5 | 1520.4456 | 0.0003 | 0.1613E+00 | 3 | 9 | 5 | 5 | | 8 | 5 | 4 | 1523.8759 | 0.0000 | 0.6785E-01 |
| 3 | 8 | 3 | 5 | | 7 | 3 | 4 | 1520.4531 | -0.0001 | 0.1613E+00 | 6 | 9 | 6 | 4 | | 8 | 3 | 5 | 1523.9521 | | 0.3260E-03 |
| 3 | 15 | 1 | 14 | | 15 | 1 | 15 | 1520.4994 | | 0.1723E-02 | 8 | 9 | 6 | 3 | | 8 | 3 | 6 | 1523.9622 | | 0.3088E-03 |
| 8 | 11 | 11 | 1 | | 16 | 10 | 0 | 1520.5620 | | 0.2811E-02 | 3 | 10 | 0 | 10 | | 9 | 0 | 9 | 1524.3358 | 0.0001 | 0.9205E-01 |
| 6 | 11 | 11 | 0 | | 16 | 10 | 1 | 1520.5620 | | 0.2811E-02 | 8 | 16 | 12 | 4 | | 16 | 11 | 5 | 1524.4691 | | 0.1376E-02 |
| 3 | 22 | 2 | 20 | | 22 | 2 | 21 | 1520.6436 | | 0.2475E-03 | 6 | 16 | 12 | 5 | | 16 | 11 | 6 | 1524.4691 | | 0.1376E-02 |
| 8 | 12 | 12 | 0 | | 12 | 11 | 1 | 1520.6498 | | 0.9475E-03 | 3 | 9 | 6 | 3 | | 8 | 6 | 2 | 1524.4976 | 0.0002 | 0.1140E-01 |
| 6 | 12 | 12 | 1 | | 12 | 11 | 2 | 1520.6498 | | 0.9475E-03 | 3 | 9 | 6 | 4 | | 8 | 6 | 3 | 1524.4976 | 0.0002 | 0.1140E-01 |
| 3 | 8 | 1 | 7 | | 7 | 1 | 6 | 1520.7273 | 0.0000 | 0.2530E+00 | 6 | 14 | 11 | 3 | | 13 | 10 | 4 | 1524.6237 | | 0.2404E-02 |
| 3 | 8 | 4 | 5 | | 7 | 4 | 4 | 1520.8425 | 0.0000 | 0.3515E-01 | 6 | 14 | 11 | 4 | | 13 | 10 | 3 | 1524.6237 | | 0.2404E-02 |
| 3 | 8 | 4 | 4 | | 7 | 4 | 3 | 1520.8427 | -0.0001 | 0.3515E-01 | 3 | 10 | 2 | 9 | | 9 | 2 | 8 | 1524.6325 | 0.0001 | 0.7471E-01 |
| 3 | 27 | 10 | 18 | | 27 | 10 | 17 | 1520.9534 | | 0.7735E-04 | 3 | 9 | 7 | 2 | | 8 | 7 | 1 | 1525.2092 | 0.0003* | 0.1380E-01 |
| 3 | 27 | 10 | 17 | | 27 | 10 | 18 | 1520.9534 | | 0.7735E-04 | 3 | 9 | 7 | 3 | | 8 | 7 | 2 | 1525.2092 | 0.0003* | 0.1380E-01 |
| 3 | 9 | 1 | 9 | | 8 | 1 | 8 | 1521.3484 | | 0.2679E+00 | 6 | 27 | 10 | 18 | | 26 | 9 | 17 | 1525.2900 | | 0.1096E-02 |
| 3 | 8 | 5 | 3 | | 7 | 5 | 2 | 1521.3503 | | 0.5890E-01 | 6 | 27 | 10 | 17 | | 26 | 9 | 18 | 1525.2900 | | 0.1096E-02 |
| 3 | 8 | 5 | 4 | | 7 | 5 | 3 | 1521.3503 | | 0.5890E-01 | 6 | 17 | 12 | 5 | | 17 | 11 | 6 | 1525.3467 | | 0.1225E-02 |

ORIGINAL PAGE IS
OF POOR QUALITY

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 6 | 17 | 12 | 6 | | 17 | 11 | 7 | 1525.3487 | | 0.1225E-02 | 3 | 11 | 5 | 7 | | 10 | 5 | 6 | 1528.9601 | 0.0001 | 0.7479E-01 |
| 3 | 10 | 3 | 8 | | 9 | 3 | 7 | 1525.4808 | -0.0004 | 0.1713E+00 | 3 | 11 | 5 | 6 | | 10 | 5 | 5 | 1528.9601 | 0.0000 | 0.7479E-01 |
| 3 | 10 | 3 | 7 | | 9 | 3 | 6 | 1525.5052 | | 0.1710E+00 | 6 | 17 | 11 | 7 | | 16 | 10 | 6 | 1528.9646 | | 0.1715E-02 |
| 3 | 10 | 2 | 8 | | 9 | 2 | 7 | 1525.5837 | 0.0000 | 0.7418E-01 | 6 | 17 | 11 | 6 | | 16 | 10 | 7 | 1528.9646 | | 0.1715E-02 |
| 3 | 17 | 1 | 16 | | 17 | 1 | 17 | 1525.8455 | | 0.1101E-02 | 3 | 12 | 0 | 12 | | 11 | 0 | 11 | 1528.9690 | 0.0000 | 0.8571E-01 |
| 3 | 10 | 4 | 7 | | 9 | 4 | 6 | 1525.8892 | 0.0001 | 0.3970E-01 | 6 | 22 | 12 | 11 | | 22 | 11 | 12 | 1529.4980 | | 0.4776E-03 |
| 3 | 10 | 4 | 6 | | 9 | 4 | 5 | 1525.8898 | -0.0004 | 0.3970E-01 | 6 | 22 | 12 | 10 | | 22 | 11 | 11 | 1529.4980 | | 0.4776E-03 |
| 3 | 10 | 1 | 9 | | 9 | 1 | 8 | 1525.9177 | 0.0000 | 0.2555E+00 | 3 | 10 | 9 | 1 | | 9 | 9 | 0 | 1529.5059 | | 0.1232E-02 |
| 3 | 9 | 8 | 1 | | 8 | 8 | 0 | 1525.9811 | | 0.1219E-02 | 3 | 10 | 9 | 2 | | 9 | 9 | 1 | 1529.5059 | | 0.1232E-02 |
| 3 | 9 | 8 | 2 | | 8 | 8 | 1 | 1525.9811 | | 0.1219E-02 | 3 | 11 | 6 | 6 | | 10 | 6 | 5 | 1529.6158 | 0.0006 | 0.1379E-01 |
| 3 | 11 | 1 | 11 | | 10 | 1 | 10 | 1525.9930 | -0.0001 | 0.2623E+00 | 3 | 11 | 6 | 5 | | 10 | 6 | 4 | 1529.6158 | 0.0006 | 0.1379E-01 |
| 3 | 24 | 2 | 22 | | 24 | 2 | 23 | 1528.0100 | | 0.1325E-03 | 3 | 12 | 2 | 11 | | 11 | 2 | 10 | 1529.9896 | 0.0000 | 0.7011E-01 |
| 6 | 15 | 11 | 4 | | 14 | 10 | 5 | 1528.0520 | | 0.2186E-02 | 6 | 30 | 10 | 20 | | 29 | 9 | 21 | 1530.2854 | | 0.4529E-03 |
| 6 | 15 | 11 | 5 | | 14 | 10 | 4 | 1528.0520 | | 0.2186E-02 | 6 | 30 | 10 | 21 | | 29 | 9 | 20 | 1530.2854 | | 0.4529E-03 |
| 6 | 18 | 12 | 6 | | 18 | 11 | 7 | 1528.2053 | | 0.1059E-02 | 6 | 23 | 12 | 11 | | 23 | 11 | 12 | 1530.2933 | | 0.3752E-03 |
| 6 | 18 | 12 | 7 | | 18 | 11 | 8 | 1528.2053 | | 0.1059E-02 | 6 | 23 | 12 | 12 | | 23 | 11 | 13 | 1530.2933 | | 0.3752E-03 |
| 6 | 10 | 8 | 5 | | 9 | 3 | 6 | 1528.2249 | | 0.1433E-02 | 3 | 11 | 7 | 5 | | 10 | 7 | 4 | 1530.3898 | 0.0012* | 0.1978E-01 |
| 6 | 10 | 6 | 4 | | 9 | 3 | 7 | 1528.2448 | | 0.1260E-02 | 3 | 11 | 7 | 4 | | 10 | 7 | 3 | 1530.3898 | 0.0012* | 0.1978E-01 |
| 3 | 10 | 5 | 8 | | 9 | 5 | 5 | 1528.4124 | -0.0001 | 0.7293E-01 | 6 | 18 | 11 | 7 | | 17 | 10 | 8 | 1530.4397 | | 0.1482E-02 |
| 3 | 10 | 5 | 5 | | 9 | 5 | 4 | 1528.4124 | -0.0001 | 0.7293E-01 | 6 | 18 | 11 | 8 | | 17 | 10 | 7 | 1530.4397 | | 0.1482E-02 |
| 3 | 11 | 0 | 11 | | 10 | 6 | 10 | 1528.6644 | 0.0001 | 0.8969E-01 | 3 | 12 | 3 | 10 | | 11 | 3 | 9 | 1530.4989 | -0.0011 | 0.1278E+00 |
| 6 | 28 | 10 | 19 | | 27 | 9 | 18 | 1528.9659 | | 0.8269E-03 | 3 | 12 | 3 | 9 | | 11 | 3 | 8 | 1530.5209 | -0.0011 | 0.9494E-01 |
| 6 | 28 | 10 | 18 | | 27 | 9 | 19 | 1528.9659 | | 0.8269E-03 | 3 | 13 | 1 | 13 | | 12 | 1 | 12 | 1530.6101 | 0.0001 | 0.2371E+00 |
| 6 | 19 | 12 | 7 | | 19 | 11 | 8 | 1527.0477 | | 0.8929E-03 | 6 | 12 | 6 | 7 | | 11 | 3 | 8 | 1530.7827 | | 0.6920E-01 |
| 6 | 19 | 12 | 8 | | 19 | 11 | 9 | 1527.0477 | | 0.8929E-03 | 6 | 12 | 6 | 8 | | 11 | 3 | 9 | 1530.8055 | | 0.3843E-01 |
| 3 | 10 | 6 | 4 | | 9 | 6 | 3 | 1527.0505 | 0.0003 | 0.1299E-01 | 3 | 12 | 2 | 10 | | 11 | 2 | 9 | 1530.9055 | -0.0001 | 0.6919E-01 |
| 3 | 10 | 6 | 5 | | 9 | 6 | 4 | 1527.0505 | 0.0003 | 0.1299E-01 | 3 | 12 | 4 | 9 | | 11 | 4 | 8 | 1530.9795 | 0.0005 | 0.3877E-01 |
| 6 | 18 | 11 | 5 | | 15 | 10 | 6 | 1527.5007 | | 0.1953E-02 | 3 | 12 | 4 | 8 | | 11 | 4 | 7 | 1530.9812 | -0.0012 | 0.3877E-01 |
| 6 | 18 | 11 | 6 | | 15 | 10 | 5 | 1527.5007 | | 0.1953E-02 | 6 | 24 | 12 | 12 | | 24 | 11 | 13 | 1531.0795 | | 0.2904E-03 |
| 3 | 11 | 2 | 10 | | 10 | 2 | 9 | 1527.5115 | -0.0001 | 0.7318E-01 | 6 | 24 | 12 | 13 | | 24 | 11 | 14 | 1531.0795 | | 0.2904E-03 |
| 3 | 10 | 7 | 3 | | 9 | 7 | 2 | 1527.7921 | 0.0006* | 0.1756E-01 | 3 | 12 | 1 | 11 | | 11 | 1 | 10 | 1531.1030 | 0.0001 | 0.2355E+00 |
| 3 | 10 | 7 | 4 | | 9 | 7 | 3 | 1527.7921 | 0.0006* | 0.1756E-01 | 3 | 19 | 1 | 18 | | 19 | 1 | 19 | 1531.1085 | | 0.6911E-03 |
| 6 | 20 | 12 | 8 | | 20 | 11 | 9 | 1527.8763 | | 0.7377E-03 | 3 | 13 | 0 | 13 | | 12 | 0 | 12 | 1531.2510 | 0.0000 | 0.8044E-01 |
| 6 | 20 | 12 | 9 | | 20 | 11 | 10 | 1527.8763 | | 0.7377E-03 | 3 | 11 | 8 | 4 | | 10 | 8 | 3 | 1531.2832 | | 0.2565E-02 |
| 3 | 11 | 3 | 9 | | 10 | 3 | 8 | 1528.0035 | -0.0004 | 0.1846E+00 | 3 | 11 | 8 | 3 | | 10 | 8 | 2 | 1531.2832 | | 0.2565E-02 |
| 3 | 11 | 3 | 8 | | 10 | 3 | 7 | 1528.0417 | -0.0006 | 0.1822E+00 | 3 | 12 | 5 | 7 | | 11 | 5 | 6 | 1531.5190 | -0.0002 | 0.7401E-01 |
| 3 | 11 | 2 | 9 | | 10 | 2 | 8 | 1528.2202 | 0.0001 | 0.7245E-01 | 3 | 12 | 5 | 8 | | 11 | 5 | 7 | 1531.5190 | -0.0002 | 0.7401E-01 |
| 3 | 12 | 1 | 12 | | 11 | 1 | 11 | 1528.3055 | 0.0000 | 0.2517E+00 | 3 | 28 | 2 | 24 | | 26 | 2 | 25 | 1531.8545 | | 0.6915E-04 |
| 3 | 18 | 1 | 17 | | 18 | 1 | 18 | 1528.3456 | | 0.8746E-03 | 6 | 25 | 12 | 14 | | 25 | 11 | 15 | 1531.8569 | | 0.2217E-03 |
| 3 | 11 | 4 | 8 | | 10 | 4 | 7 | 1528.4288 | 0.0002 | 0.3980E-01 | 6 | 25 | 12 | 13 | | 25 | 11 | 14 | 1531.8569 | | 0.2217E-03 |
| 3 | 11 | 4 | 7 | | 10 | 4 | 8 | 1528.4298 | -0.0007 | 0.3980E-01 | 6 | 19 | 11 | 9 | | 18 | 10 | 8 | 1531.9235 | | 0.1262E-02 |
| 6 | 11 | 6 | 6 | | 10 | 3 | 7 | 1528.4821 | | 0.8129E-02 | 6 | 19 | 11 | 8 | | 18 | 10 | 9 | 1531.9235 | | 0.1262E-02 |
| 3 | 11 | 1 | 10 | | 10 | 1 | 9 | 1528.5123 | 0.0001 | 0.2478E+00 | 3 | 12 | 6 | 8 | | 11 | 8 | 5 | 1532.1936 | 0.0007 | 0.1397E-01 |
| 6 | 11 | 6 | 5 | | 10 | 3 | 8 | 1528.5157 | | 0.5857E-02 | 3 | 12 | 8 | 7 | | 11 | 6 | 6 | 1532.1936 | 0.0007 | 0.1397E-01 |
| 3 | 10 | 8 | 3 | | 9 | 8 | 2 | 1528.8224 | | 0.2047E-02 | 3 | 11 | 9 | 3 | | 10 | 9 | 2 | 1532.3201 | | 0.2019E-02 |
| 3 | 10 | 8 | 2 | | 9 | 8 | 1 | 1528.8224 | | 0.2047E-02 | 3 | 11 | 9 | 2 | | 10 | 9 | 1 | 1532.3201 | | 0.2019E-02 |
| 6 | 29 | 10 | 20 | | 28 | 9 | 19 | 1528.8309 | | 0.6159E-03 | 3 | 13 | 2 | 12 | | 12 | 2 | 11 | 1532.4859 | 0.0000 | 0.6585E-01 |
| 6 | 29 | 10 | 19 | | 28 | 9 | 20 | 1528.8309 | | 0.6159E-03 | 6 | 28 | 12 | 15 | | 26 | 11 | 16 | 1532.6262 | | 0.1669E-03 |
| 6 | 21 | 12 | 10 | | 21 | 11 | 11 | 1528.8928 | | 0.5985E-03 | 6 | 28 | 12 | 14 | | 26 | 11 | 15 | 1532.6262 | | 0.1669E-03 |
| 6 | 21 | 12 | 9 | | 21 | 11 | 10 | 1528.8928 | | 0.5985E-03 | 6 | 13 | 6 | 8 | | 12 | 3 | 9 | 1532.7803 | | 0.2072E-01 |
| 3 | 25 | 2 | 23 | | 25 | 2 | 24 | 1528.8792 | | 0.9699E-04 | 6 | 13 | 6 | 7 | | 12 | 3 | 10 | 1532.8483 | | 0.4405E-01 |

| v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | v | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 3 | 14 | 1 | 14 | | 13 | 1 | 13 | 1532.9063 | 0.0001 | 0.2194E+00 | 3 | 14 | 1 | 13 | | 13 | 1 | 12 | 1536.2600 | 0.0000 | 0.2009E+00 |
| 3 | 12 | 7 | 5 | | 11 | 7 | 4 | 1533.0020 | 0.0015* | 0.2070E-01 | 3 | 13 | 2 | 12 | | 13 | 0 | 13 | 1536.2699 | 0.0002 | 0.2235E-03 |
| 3 | 12 | 7 | 6 | | 11 | 7 | 5 | 1533.0020 | 0.0015* | 0.2070E-01 | 3 | 14 | 2 | 12 | | 13 | 2 | 11 | 1536.3512 | 0.0002 | 0.5943E-01 |
| 3 | 13 | 3 | 11 | | 12 | 3 | 10 | 1533.2260 | 0.0011 | 0.1109E+00 | 6 | 22 | 11 | 12 | | 21 | 10 | 11 | 1536.4073 | | 0.7132E-03 |
| 3 | 13 | 3 | 10 | | 12 | 3 | 9 | 1533.2865 | 0.0005 | 0.1340E+00 | 6 | 22 | 11 | 11 | | 21 | 10 | 12 | 1536.4073 | | 0.7132E-03 |
| 6 | 27 | 12 | 16 | | 27 | 11 | 17 | 1533.3876 | | 0.1240E-03 | 3 | 13 | 8 | 6 | | 12 | 8 | 5 | 1536.6602 | | 0.2925E-02 |
| 6 | 27 | 12 | 15 | | 27 | 11 | 16 | 1533.3876 | | 0.1240E-03 | 3 | 13 | 8 | 5 | | 12 | 8 | 4 | 1536.6602 | | 0.2925E-02 |
| 6 | 20 | 11 | 9 | | 19 | 10 | 10 | 1533.4137 | | 0.1058E-02 | 3 | 14 | 5 | 10 | | 13 | 5 | 9 | 1536.8707 | 0.0001 | 0.8672E-01 |
| 6 | 20 | 11 | 10 | | 19 | 10 | 9 | 1533.4137 | | 0.1058E-02 | 3 | 14 | 5 | 9 | | 13 | 5 | 8 | 1536.8707 | 0.0000 | 0.8672E-01 |
| 3 | 8 | 2 | 5 | | 6 | 0 | 6 | 1533.4579 | | 0.8163E-04 | 3 | 21 | 1 | 20 | | 21 | 1 | 21 | 1536.7527 | | 0.4242E-03 |
| 3 | 14 | 0 | 14 | | 13 | 0 | 13 | 1533.5125 | -0.0003 | 0.7424E-01 | 6 | 15 | 6 | 10 | | 14 | 3 | 11 | 1537.0128 | | 0.4865E-02 |
| 3 | 13 | 4 | 10 | | 12 | 4 | 9 | 1533.5415 | 0.0009 | 0.3686E-01 | 3 | 14 | 2 | 13 | | 14 | 0 | 14 | 1537.0894 | | 0.2248E-03 |
| 3 | 13 | 4 | 9 | | 12 | 4 | 8 | 1533.5446 | -0.0021 | 0.3686E-01 | 6 | 15 | 6 | 9 | | 14 | 3 | 12 | 1537.2539 | | 0.9508E-02 |
| 3 | 13 | 2 | 11 | | 12 | 2 | 10 | 1533.6171 | 0.0000 | 0.8474E-01 | 3 | 14 | 6 | 8 | | 13 | 6 | 7 | 1537.3858 | 0.0011 | 0.1293E-01 |
| 3 | 7 | 2 | 6 | | 7 | 0 | 7 | 1533.6206 | | 0.8832E-04 | 3 | 14 | 6 | 9 | | 13 | 6 | 8 | 1537.3858 | 0.0011 | 0.1293E-01 |
| 3 | 13 | 1 | 12 | | 12 | 1 | 11 | 1533.6866 | 0.0000 | 0.2195E+00 | 3 | 15 | 2 | 14 | | 14 | 2 | 13 | 1537.4084 | 0.0001 | 0.5504E-01 |
| 3 | 8 | 2 | 7 | | 8 | 0 | 8 | 1533.8425 | | 0.1176E-03 | 3 | 16 | 1 | 16 | | 15 | 1 | 15 | 1537.4728 | -0.0002 | 0.1791E+00 |
| 3 | 20 | 1 | 19 | | 20 | 1 | 20 | 1533.9166 | | 0.5431E-03 | 3 | 14 | 11 | 4 | | 13 | 11 | 3 | 1537.6348 | | 0.2136E-02 |
| 3 | 12 | 8 | 5 | | 11 | 8 | 4 | 1533.9626 | | 0.2839E-02 | 3 | 14 | 11 | 3 | | 13 | 11 | 2 | 1537.6348 | | 0.2136E-02 |
| 3 | 12 | 8 | 4 | | 11 | 8 | 3 | 1533.9626 | | 0.2839E-02 | 6 | 23 | 11 | 12 | | 22 | 10 | 13 | 1537.9084 | | 0.5734E-03 |
| 3 | 13 | 5 | 9 | | 12 | 5 | 8 | 1534.0892 | 0.0001 | 0.7114E-01 | 6 | 23 | 11 | 13 | | 22 | 10 | 12 | 1537.9084 | | 0.5734E-03 |
| 3 | 13 | 5 | 8 | | 12 | 5 | 7 | 1534.0892 | 0.0000 | 0.7114E-01 | 3 | 16 | 0 | 18 | | 15 | 0 | 15 | 1537.9851 | -0.0006 | 0.8030E-01 |
| 3 | 9 | 2 | 8 | | 9 | 0 | 9 | 1534.1364 | | 0.1471E-03 | 3 | 13 | 9 | 5 | | 12 | 9 | 4 | 1538.0204 | | 0.2663E-02 |
| 6 | 28 | 12 | 17 | | 28 | 11 | 18 | 1534.1414 | | 0.9095E-04 | 3 | 13 | 9 | 4 | | 12 | 9 | 3 | 1538.0204 | | 0.2663E-02 |
| 6 | 28 | 12 | 16 | | 28 | 11 | 17 | 1534.1414 | | 0.9095E-04 | 3 | 15 | 2 | 14 | | 15 | 0 | 15 | 1538.0332 | | 0.2186E-03 |
| 3 | 10 | 2 | 9 | | 10 | 0 | 10 | 1534.5148 | | 0.1746E-03 | 3 | 14 | 7 | 8 | | 13 | 7 | 7 | 1538.2688 | 0.0015* | 0.1988E-01 |
| 3 | 13 | 8 | 8 | | 12 | 6 | 7 | 1534.7834 | 0.0009 | 0.1364E-01 | 3 | 14 | 7 | 7 | | 13 | 7 | 6 | 1538.2688 | 0.0015* | 0.1988E-01 |
| 3 | 13 | 6 | 7 | | 12 | 6 | 6 | 1534.7834 | 0.0009 | 0.1364E-01 | 3 | 15 | 3 | 13 | | 14 | 3 | 12 | 1538.3264 | 0.0003 | 0.1205E+00 |
| 6 | 29 | 12 | 17 | | 29 | 11 | 18 | 1534.8878 | | 0.8584E-04 | 3 | 15 | 3 | 12 | | 14 | 3 | 11 | 1538.5148 | 0.0001 | 0.1248E+00 |
| 6 | 29 | 12 | 18 | | 29 | 11 | 19 | 1534.8878 | | 0.8584E-04 | 3 | 15 | 4 | 12 | | 14 | 4 | 11 | 1538.8993 | -0.0006 | 0.3126E-01 |
| 6 | 21 | 11 | 10 | | 20 | 10 | 11 | 1534.9087 | | 0.8749E-03 | 3 | 15 | 4 | 11 | | 14 | 4 | 10 | 1538.7080 | -0.0007 | 0.3125E-01 |
| 6 | 21 | 11 | 11 | | 20 | 10 | 10 | 1534.9087 | | 0.8749E-03 | 3 | 15 | 1 | 14 | | 14 | 1 | 13 | 1538.8195 | 0.0001 | 0.1808E+00 |
| 3 | 12 | 11 | 2 | | 11 | 11 | 1 | 1534.9235 | | 0.1203E-02 | 6 | 16 | 6 | 11 | | 16 | 3 | 12 | 1539.0385 | | 0.3326E-02 |
| 3 | 12 | 11 | 1 | | 11 | 11 | 0 | 1534.9235 | | 0.1203E-02 | 3 | 15 | 11 | 4 | | 14 | 11 | 3 | 1539.0457 | | 0.2214E-02 |
| 6 | 14 | 8 | 9 | | 13 | 3 | 10 | 1534.9268 | | 0.8343E-02 | 3 | 15 | 11 | 5 | | 14 | 11 | 4 | 1539.0457 | | 0.2214E-02 |
| 3 | 14 | 2 | 13 | | 13 | 2 | 12 | 1534.9391 | 0.0000 | 0.6073E-01 | 3 | 16 | 2 | 15 | | 16 | 0 | 16 | 1539.1018 | | 0.2060E-03 |
| 3 | 11 | 2 | 10 | | 11 | 0 | 11 | 1534.9899 | | 0.1977E-03 | 3 | 15 | 2 | 13 | | 14 | 2 | 12 | 1539.1035 | 0.0002 | 0.6357E-01 |
| 6 | 14 | 6 | 8 | | 13 | 3 | 11 | 1535.0737 | | 0.1874E-01 | 3 | 13 | 12 | 1 | | 12 | 12 | 0 | 1539.1475 | | 0.8245E-04 |
| 3 | 12 | 9 | 4 | | 11 | 9 | 3 | 1535.1589 | | 0.2487E-02 | 3 | 15 | 5 | 11 | | 14 | 5 | 10 | 1539.2634 | 0.0001 | 0.6121E-01 |
| 3 | 12 | 9 | 3 | | 11 | 9 | 2 | 1535.1589 | | 0.2487E-02 | 3 | 15 | 5 | 10 | | 14 | 5 | 9 | 1539.2635 | -0.0001 | 0.6121E-01 |
| 3 | 15 | 1 | 15 | | 14 | 1 | 14 | 1535.1938 | -0.0002 | 0.1998E+00 | 3 | 14 | 8 | 7 | | 13 | 8 | 6 | 1539.3752 | | 0.2870E-02 |
| 3 | 12 | 2 | 11 | | 12 | 0 | 12 | 1535.5721 | | 0.2144E-03 | 3 | 14 | 8 | 6 | | 13 | 8 | 5 | 1539.4067 | | 0.6586E-02 |
| 3 | 13 | 7 | 7 | | 12 | 7 | 6 | 1535.8285 | 0.0017* | 0.2066E-01 | 6 | 16 | 6 | 10 | | 15 | 3 | 13 | 1539.4067 | | 0.6586E-02 |
| 3 | 13 | 7 | 6 | | 12 | 7 | 5 | 1535.8285 | 0.0017* | 0.2066E-01 | 6 | 24 | 11 | 14 | | 23 | 10 | 13 | 1539.4110 | | 0.4548E-03 |
| 3 | 15 | 0 | 15 | | 14 | 0 | 14 | 1535.7560 | | 0.8742E-01 | 6 | 24 | 11 | 13 | | 23 | 10 | 14 | 1539.4110 | | 0.4548E-03 |
| 3 | 14 | 3 | 12 | | 13 | 3 | 11 | 1535.7599 | | 0.1265E+00 | 3 | 22 | 1 | 21 | | 22 | 1 | 22 | 1539.6003 | | 0.3292E-03 |
| 3 | 14 | 3 | 11 | | 13 | 3 | 10 | 1535.8828 | 0.0005 | 0.1347E+00 | 3 | 17 | 1 | 17 | | 16 | 1 | 16 | 1539.7428 | -0.0001 | 0.1581E+00 |
| 3 | 14 | 4 | 11 | | 13 | 4 | 10 | 1538.1147 | 0.0007 | 0.3428E-01 | 3 | 18 | 2 | 15 | | 15 | 2 | 14 | 1539.8727 | 0.0002 | 0.4906E-01 |
| 3 | 14 | 4 | 10 | | 13 | 4 | 9 | 1538.1199 | -0.0045 | 0.3428E-01 | 3 | 15 | 6 | 9 | | 14 | 6 | 8 | 1539.9996 | 0.0014 | 0.1196E-01 |
| 3 | 13 | 11 | 3 | | 12 | 11 | 2 | 1538.2559 | | 0.1840E-02 | 3 | 15 | 6 | 10 | | 14 | 6 | 9 | 1539.9996 | 0.0014 | 0.1196E-01 |

| J Ka Kc - | | | J Ka Kc | | | STRENGTH | | | FREQUENCY | | | RESIDUAL | | | STRENGTH | | | | |
|-----------|----|----|---------|----|----|-----------|------------|------------|------------|----|----|----------|----|----|-----------|-----------|------------|------------|------------|
| V | | | V | | | 3 | | | 3 | | | 3 | | | 3 | | | | |
| 3 | 17 | 0 | 17 | 16 | 0 | 1540.2028 | -0.0007 | 0.6313E-01 | 3 | 17 | 4 | 16 | 4 | 13 | 1643.9023 | -0.0008 | 0.2461E-01 | | |
| 3 | 17 | 2 | 16 | 17 | 0 | 1540.2931 | 0.1888E-03 | 0.2154E-02 | 6 | 27 | 11 | 16 | 26 | 10 | 17 | 1543.9218 | 0.2095E-03 | 0.2095E-03 | |
| 3 | 16 | 11 | 5 | 16 | 11 | 4 | 1540.4794 | 0.2154E-02 | 0.2154E-02 | 6 | 27 | 11 | 17 | 26 | 10 | 16 | 1543.9218 | 0.2095E-03 | 0.2095E-03 |
| 3 | 16 | 11 | 6 | 15 | 11 | 5 | 1540.4794 | 0.2154E-02 | 0.2154E-02 | 3 | 17 | 4 | 13 | 16 | 4 | 12 | 1543.9241 | -0.0008 | 0.2460E-01 |
| 3 | 14 | 9 | 6 | 13 | 9 | 5 | 1540.9025 | 0.2676E-02 | 0.2676E-02 | 6 | 13 | 13 | 6 | 13 | 12 | 1 | 1544.2194 | 0.5820E-04 | 0.5820E-04 |
| 3 | 14 | 9 | 5 | 13 | 9 | 4 | 1540.9025 | 0.2676E-02 | 0.2676E-02 | 6 | 13 | 13 | 1 | 13 | 12 | 2 | 1544.2194 | 0.5820E-04 | 0.5820E-04 |
| 3 | 16 | 3 | 14 | 15 | 3 | 13 | 1540.9075 | 0.0002 | 0.1094E+00 | 3 | 19 | 1 | 19 | 18 | 1 | 18 | 1544.2194 | 0.0002 | 0.1180E+00 |
| 6 | 25 | 11 | 15 | 24 | 16 | 14 | 1540.9146 | 0.3569E-03 | 0.3569E-03 | 3 | 17 | 6 | 13 | 16 | 5 | 12 | 1544.4829 | 0.0002 | 0.4860E-01 |
| 6 | 25 | 11 | 14 | 24 | 16 | 15 | 1540.9146 | 0.3569E-03 | 0.3569E-03 | 3 | 17 | 5 | 12 | 16 | 5 | 11 | 1544.4835 | -0.0004 | 0.4860E-01 |
| 3 | 15 | 7 | 9 | 14 | 7 | 8 | 1540.9220 | 0.0009* | 0.1867E-01 | 3 | 20 | 2 | 19 | 26 | 6 | 20 | 1544.5514 | 0.1254E-03 | 0.1254E-03 |
| 3 | 15 | 7 | 8 | 14 | 7 | 7 | 1540.9220 | 0.0009* | 0.1857E-01 | 3 | 19 | 6 | 19 | 18 | 6 | 18 | 1544.6138 | -0.0012 | 0.3953E-01 |
| 3 | 14 | 12 | 3 | 13 | 12 | 2 | 1541.0398 | 0.2453E-02 | 0.2453E-02 | 3 | 17 | 6 | 13 | 2 | 14 | 12 | 1544.6429 | 0.0006 | 0.4136E-01 |
| 3 | 14 | 12 | 2 | 13 | 12 | 1 | 1541.0398 | 0.1367E-03 | 0.1367E-03 | 6 | 14 | 13 | 2 | 14 | 12 | 3 | 1544.6813 | 0.9341E-04 | 0.9341E-04 |
| 3 | 16 | 3 | 13 | 15 | 3 | 12 | 1541.1768 | 0.0001 | 0.1122E+00 | 6 | 19 | 6 | 14 | 14 | 12 | 1 | 1544.6613 | 0.1468E-02 | 0.1468E-02 |
| 3 | 16 | 4 | 13 | 15 | 4 | 12 | 1541.2952 | -0.0007 | 0.2798E-01 | 3 | 16 | 12 | 4 | 15 | 12 | 3 | 1544.6760 | 0.1829E-03 | 0.1829E-03 |
| 3 | 16 | 4 | 12 | 15 | 4 | 11 | 1541.3092 | -0.0006 | 0.2797E-01 | 3 | 18 | 2 | 17 | 17 | 12 | 4 | 1544.7617 | 0.0002 | 0.1829E-03 |
| 3 | 16 | 1 | 15 | 15 | 1 | 14 | 1541.3616 | 0.0004 | 0.1800E+00 | 3 | 18 | 2 | 17 | 17 | 12 | 6 | 1544.7623 | 0.0002 | 0.3719E-01 |
| 3 | 16 | 1 | 15 | 15 | 1 | 14 | 1541.3616 | 0.0004 | 0.1800E+00 | 6 | 16 | 8 | 9 | 15 | 8 | 8 | 1544.8549 | 0.2490E-02 | 0.2490E-02 |
| 3 | 16 | 1 | 15 | 15 | 1 | 14 | 1541.3616 | 0.0004 | 0.1800E+00 | 6 | 16 | 8 | 8 | 15 | 8 | 7 | 1544.8649 | 0.1591E-02 | 0.1591E-02 |
| 3 | 17 | 6 | 12 | 13 | 6 | 11 | 1541.5372 | 0.6037E-02 | 0.6037E-02 | 3 | 15 | 13 | 2 | 14 | 13 | 1 | 1544.9386 | 0.1131E-03 | 0.1131E-03 |
| 3 | 18 | 2 | 17 | 18 | 0 | 18 | 1541.6027 | 0.1688E-03 | 0.1688E-03 | 6 | 15 | 13 | 3 | 14 | 13 | 2 | 1544.9386 | 0.1131E-03 | 0.1131E-03 |
| 3 | 16 | 5 | 12 | 15 | 5 | 11 | 1541.8876 | 0.6506E-01 | 0.6506E-01 | 6 | 16 | 13 | 2 | 15 | 12 | 3 | 1545.1213 | 0.1115E-03 | 0.1115E-03 |
| 3 | 16 | 5 | 11 | 15 | 5 | 10 | 1541.8878 | 0.6506E-01 | 0.6506E-01 | 6 | 19 | 11 | 3 | 18 | 11 | 3 | 1545.1213 | 0.1115E-03 | 0.1115E-03 |
| 3 | 16 | 2 | 14 | 15 | 2 | 13 | 1541.8891 | 0.4746E-01 | 0.4746E-01 | 3 | 15 | 13 | 2 | 14 | 13 | 1 | 1544.9386 | 0.7679E-04 | 0.7679E-04 |
| 3 | 17 | 6 | 11 | 16 | 3 | 14 | 1541.9301 | 0.2007E-02 | 0.2007E-02 | 3 | 15 | 13 | 3 | 14 | 13 | 2 | 1544.9386 | 0.0015 | 0.9592E-02 |
| 3 | 18 | 1 | 18 | 17 | 0 | 18 | 1541.9301 | 0.2007E-02 | 0.2007E-02 | 6 | 15 | 13 | 2 | 15 | 12 | 3 | 1545.1213 | 0.0015 | 0.9592E-02 |
| 3 | 17 | 1 | 18 | 17 | 1 | 17 | 1542.0942 | -0.0001 | 0.2713E-02 | 6 | 22 | 5 | 18 | 21 | 9 | 21 | 1545.1312 | 0.1940E-03 | 0.1940E-03 |
| 3 | 15 | 8 | 8 | 14 | 8 | 7 | 1542.0971 | 0.2713E-02 | 0.2713E-02 | 6 | 17 | 6 | 12 | 16 | 6 | 11 | 1545.2633 | 0.0015 | 0.1676E-03 |
| 3 | 15 | 8 | 7 | 14 | 8 | 6 | 1542.1071 | 0.4304E-01 | 0.4304E-01 | 3 | 17 | 6 | 11 | 16 | 6 | 10 | 1545.2633 | 0.0015 | 0.1676E-03 |
| 3 | 15 | 8 | 7 | 14 | 8 | 6 | 1542.1071 | 0.4304E-01 | 0.4304E-01 | 3 | 24 | 1 | 23 | 24 | 1 | 24 | 1545.2726 | 0.0015 | 0.1676E-03 |
| 3 | 15 | 8 | 7 | 14 | 8 | 6 | 1542.1071 | 0.2749E-03 | 0.2749E-03 | 6 | 28 | 11 | 17 | 27 | 10 | 18 | 1545.4244 | 0.0015 | 0.1676E-03 |
| 3 | 17 | 2 | 16 | 16 | 2 | 15 | 1542.3311 | 0.0002 | 0.1082E-01 | 6 | 16 | 13 | 4 | 17 | 10 | 17 | 1545.4244 | 0.0002 | 0.1676E-03 |
| 3 | 18 | 0 | 18 | 17 | 0 | 17 | 1542.4114 | -0.0003 | 0.4815E-01 | 6 | 19 | 6 | 13 | 18 | 3 | 18 | 1545.5977 | 0.0002 | 0.1676E-03 |
| 3 | 18 | 0 | 18 | 17 | 1 | 17 | 1542.4114 | -0.0003 | 0.4815E-01 | 6 | 19 | 6 | 13 | 18 | 3 | 18 | 1545.5977 | 0.0002 | 0.1676E-03 |
| 3 | 26 | 1 | 15 | 25 | 19 | 16 | 1542.4183 | 0.2749E-03 | 0.2749E-03 | 6 | 28 | 11 | 17 | 27 | 10 | 18 | 1545.5977 | 0.0002 | 0.1676E-03 |
| 3 | 26 | 1 | 15 | 25 | 16 | 16 | 1542.4183 | 0.2749E-03 | 0.2749E-03 | 6 | 17 | 13 | 4 | 17 | 12 | 5 | 1546.0887 | 0.0002 | 0.1676E-03 |
| 3 | 23 | 1 | 22 | 23 | 1 | 23 | 1542.4146 | 0.2537E-03 | 0.2537E-03 | 6 | 16 | 13 | 4 | 16 | 12 | 5 | 1546.0887 | 0.0002 | 0.1676E-03 |
| 3 | 16 | 6 | 10 | 15 | 6 | 9 | 1542.6258 | 0.0014 | 0.1082E-01 | 6 | 16 | 13 | 3 | 16 | 12 | 4 | 1546.5977 | 0.0002 | 0.1676E-03 |
| 3 | 16 | 6 | 11 | 15 | 6 | 10 | 1542.6258 | 0.0014 | 0.1082E-01 | 6 | 19 | 6 | 13 | 18 | 7 | 10 | 1546.5977 | 0.0002 | 0.1676E-03 |
| 3 | 18 | 6 | 13 | 17 | 3 | 14 | 1542.8793 | 0.1880E-02 | 0.1880E-02 | 6 | 17 | 13 | 4 | 17 | 12 | 5 | 1546.7430 | 0.3370E-02 | 0.3370E-02 |
| 3 | 14 | 13 | 1 | 13 | 13 | 9 | 1542.9016 | 0.6844E-04 | 0.6844E-04 | 6 | 17 | 13 | 5 | 17 | 12 | 6 | 1546.7430 | 0.1503E-01 | 0.1503E-01 |
| 3 | 14 | 13 | 2 | 13 | 13 | 1 | 1542.9016 | 0.6844E-04 | 0.6844E-04 | 3 | 18 | 3 | 16 | 19 | 11 | 8 | 1546.9089 | 0.0005 | 0.8378E-01 |
| 3 | 15 | 12 | 3 | 14 | 12 | 2 | 1542.9073 | 0.1686E-03 | 0.1686E-03 | 3 | 21 | 6 | 20 | 21 | 7 | 10 | 1546.9089 | 0.1649E-03 | 0.1649E-03 |
| 3 | 15 | 12 | 4 | 14 | 12 | 3 | 1542.9073 | 0.1686E-03 | 0.1686E-03 | 3 | 17 | 7 | 11 | 16 | 7 | 10 | 1546.9089 | 0.1649E-03 | 0.1649E-03 |
| 3 | 19 | 2 | 18 | 19 | 6 | 19 | 1543.0245 | 0.1470E-03 | 0.1470E-03 | 3 | 17 | 7 | 10 | 16 | 7 | 9 | 1546.2845 | -0.0035* | 0.1197E+00 |
| 3 | 18 | 1 | 11 | 17 | 3 | 14 | 1543.3934 | 0.1810E-02 | 0.1810E-02 | 3 | 20 | 1 | 10 | 19 | 11 | 9 | 1546.3457 | 0.9978E-01 | 0.9978E-01 |
| 3 | 18 | 1 | 11 | 17 | 1 | 16 | 1543.3934 | 0.1810E-02 | 0.1810E-02 | 3 | 20 | 1 | 9 | 19 | 11 | 8 | 1546.3457 | 0.1368E-02 | 0.1368E-02 |
| 3 | 17 | 3 | 15 | 16 | 3 | 14 | 1543.4984 | 0.0004 | 0.9671E-01 | 6 | 20 | 6 | 15 | 19 | 3 | 16 | 1546.3457 | 0.1368E-02 | 0.1368E-02 |
| 3 | 16 | 7 | 16 | 15 | 7 | 9 | 1543.5878 | -0.0006* | 0.1890E-01 | 3 | 18 | 1 | 17 | 17 | 1 | 16 | 1546.3734 | 0.1156E-02 | 0.1156E-02 |
| 3 | 18 | 6 | 12 | 17 | 3 | 15 | 1543.5878 | -0.0006* | 0.1890E-01 | 3 | 20 | 1 | 26 | 19 | 11 | 9 | 1546.3734 | 0.1156E-02 | 0.1156E-02 |
| 3 | 15 | 9 | 7 | 14 | 9 | 6 | 1543.8036 | 0.0004 | 0.4061E-02 | 3 | 18 | 4 | 15 | 17 | 4 | 14 | 1546.5266 | -0.0008 | 0.2128E-01 |
| 3 | 17 | 3 | 14 | 16 | 3 | 13 | 1543.8888 | 0.0001 | 0.2562E-02 | 3 | 17 | 12 | 5 | 16 | 12 | 4 | 1546.5742 | 0.1843E-03 | 0.1843E-03 |
| 3 | 16 | 1 | 16 | 16 | 1 | 16 | 1543.8888 | 0.0001 | 0.2562E-02 | 3 | 17 | 12 | 6 | 16 | 12 | 5 | 1546.5742 | 0.1843E-03 | 0.1843E-03 |
| 3 | 15 | 9 | 6 | 14 | 9 | 5 | 1543.8036 | 0.0001 | 0.2562E-02 | 3 | 18 | 3 | 16 | 17 | 3 | 14 | 1546.5925 | 0.8539E-01 | 0.8539E-01 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|---|----|----|----|-----------|----------|------------|---|----|----|----|---|----|----|----|-----------|----------|------------|
| 6 | 18 | 13 | 5 | | 18 | 12 | 6 | 1548.5933 | | 0.1064E-03 | 3 | 17 | 9 | 8 | | 18 | 9 | 7 | 1549.6552 | | 0.2122E-02 |
| 6 | 18 | 13 | 6 | | 18 | 12 | 7 | 1548.5933 | | 0.1064E-03 | 3 | 20 | 2 | 19 | | 19 | 2 | 18 | 1549.6614 | 0.0004 | 0.2657E-01 |
| 3 | 18 | 9 | 8 | | 15 | 9 | 7 | 1548.7216 | | 0.2366E-02 | 6 | 12 | 12 | 1 | | 11 | 11 | 0 | 1549.6715 | | 0.2410E-02 |
| 3 | 18 | 9 | 7 | | 15 | 9 | 8 | 1548.7216 | | 0.2366E-02 | 6 | 12 | 12 | 0 | | 11 | 11 | 1 | 1549.6715 | | 0.2410E-02 |
| 3 | 20 | 0 | 20 | | 19 | 0 | 19 | 1548.8118 | -0.0016 | 0.3339E-01 | 3 | 23 | 2 | 22 | | 23 | 0 | 23 | 1549.6835 | | 0.8949E-04 |
| 6 | 29 | 11 | 19 | | 28 | 10 | 18 | 1548.9266 | | 0.1171E-03 | 3 | 19 | 5 | 15 | | 18 | 5 | 14 | 1549.7478 | 0.0007 | 0.3598E-01 |
| 6 | 29 | 11 | 18 | | 28 | 10 | 19 | 1548.9266 | | 0.1171E-03 | 3 | 19 | 5 | 14 | | 18 | 5 | 13 | 1549.7495 | -0.0009 | 0.3598E-01 |
| 3 | 18 | 13 | 3 | | 15 | 13 | 2 | 1548.9532 | | 0.1389E-03 | 6 | 23 | 5 | 19 | | 22 | 0 | 22 | 1549.7504 | | 0.1985E-03 |
| 3 | 18 | 13 | 4 | | 15 | 13 | 3 | 1548.9532 | | 0.1389E-03 | 6 | 21 | 6 | 15 | | 20 | 3 | 18 | 1549.8964 | | 0.2409E-02 |
| 3 | 18 | 5 | 14 | | 17 | 5 | 13 | 1547.1097 | 0.0004 | 0.4216E-01 | 3 | 19 | 12 | 8 | | 18 | 12 | 7 | 1550.1584 | | 0.1829E-03 |
| 6 | 19 | 13 | 7 | | 19 | 12 | 8 | 1547.1097 | | 0.9512E-04 | 3 | 19 | 12 | 7 | | 18 | 12 | 6 | 1550.1584 | | 0.1829E-03 |
| 3 | 18 | 5 | 13 | | 17 | 5 | 12 | 1547.1097 | -0.0006 | 0.9512E-04 | 3 | 19 | 2 | 17 | | 18 | 2 | 16 | 1550.1973 | 0.0011 | 0.2994E-01 |
| 3 | 19 | 2 | 18 | | 18 | 2 | 17 | 1547.2281 | 0.0004 | 0.3166E-01 | 3 | 18 | 8 | 10 | | 17 | 8 | 9 | 1550.3959 | | 0.1951E-02 |
| 3 | 18 | 2 | 18 | | 17 | 2 | 15 | 1547.4206 | 0.0007 | 0.3547E-01 | 4 | 18 | 10 | 8 | | 17 | 7 | 10 | 1550.4229 | | 0.1302E-03 |
| 3 | 17 | 8 | 9 | | 16 | 8 | 8 | 1547.6180 | | 0.2229E-02 | 4 | 18 | 10 | 9 | | 17 | 7 | 11 | 1550.4229 | | 0.1302E-03 |
| 3 | 17 | 8 | 10 | | 16 | 8 | 9 | 1547.6180 | | 0.2229E-02 | 3 | 19 | 6 | 14 | | 18 | 8 | 13 | 1550.5736 | 0.0017 | 0.7141E-02 |
| 6 | 20 | 13 | 7 | | 20 | 12 | 8 | 1547.6368 | | 0.8252E-04 | 3 | 19 | 6 | 13 | | 18 | 6 | 12 | 1550.5736 | 0.0017 | 0.7141E-02 |
| 6 | 20 | 13 | 8 | | 20 | 12 | 9 | 1547.6368 | | 0.8252E-04 | 6 | 23 | 8 | 18 | | 22 | 3 | 19 | 1550.7756 | | 0.5670E-03 |
| 6 | 20 | 6 | 14 | | 19 | 3 | 17 | 1547.8246 | | 0.2839E-02 | 3 | 23 | 11 | 13 | | 22 | 11 | 12 | 1550.8101 | | 0.7765E-03 |
| 3 | 21 | 11 | 11 | | 20 | 11 | 10 | 1547.8306 | | 0.1153E-02 | 3 | 23 | 11 | 12 | | 22 | 11 | 11 | 1550.8101 | | 0.7765E-03 |
| 3 | 21 | 11 | 10 | | 20 | 11 | 9 | 1547.8306 | | 0.1153E-02 | 3 | 7 | 2 | 5 | | 6 | 0 | 6 | 1550.8326 | | 0.7417E-04 |
| 3 | 22 | 2 | 21 | | 22 | 0 | 22 | 1547.8892 | | 0.8810E-04 | 3 | 26 | 1 | 25 | | 26 | 1 | 26 | 1550.8401 | | 0.1106E-03 |
| 3 | 18 | 6 | 13 | | 17 | 6 | 12 | 1547.9127 | 0.0018 | 0.8349E-02 | 3 | 18 | 13 | 5 | | 17 | 13 | 4 | 1550.9175 | | 0.1509E-03 |
| 3 | 18 | 6 | 12 | | 17 | 6 | 11 | 1547.9127 | 0.0017 | 0.8349E-02 | 3 | 18 | 13 | 6 | | 17 | 13 | 5 | 1550.9175 | | 0.1509E-03 |
| 6 | 21 | 6 | 16 | | 20 | 3 | 17 | 1547.9633 | | 0.9129E-03 | 3 | 22 | 1 | 22 | | 21 | 1 | 21 | 1550.9658 | 0.0002 | 0.6854E-01 |
| 3 | 25 | 1 | 24 | | 25 | 1 | 25 | 1548.0735 | | 0.1471E-03 | 3 | 22 | 0 | 22 | | 21 | 0 | 21 | 1551.2018 | -0.0022 | 0.2284E-01 |
| 3 | 6 | 2 | 4 | | 5 | 0 | 5 | 1548.1404 | | 0.5001E-04 | 3 | 20 | 1 | 19 | | 19 | 1 | 18 | 1551.2861 | 0.0000 | 0.8445E-01 |
| 6 | 21 | 13 | 8 | | 21 | 12 | 9 | 1548.1736 | | 0.6976E-04 | 3 | 24 | 2 | 23 | | 24 | 0 | 24 | 1551.5507 | 0.0005 | 0.5971E-01 |
| 6 | 21 | 13 | 9 | | 21 | 12 | 10 | 1548.1736 | | 0.6976E-04 | 3 | 19 | 7 | 13 | | 18 | 7 | 12 | 1551.6324 | -0.0237* | 0.1088E-01 |
| 3 | 18 | 12 | 7 | | 17 | 12 | 6 | 1548.3760 | | 0.1766E-03 | 3 | 19 | 7 | 12 | | 18 | 7 | 11 | 1551.6324 | -0.0237* | 0.1088E-01 |
| 3 | 18 | 12 | 6 | | 17 | 12 | 5 | 1548.3760 | | 0.1766E-03 | 3 | 20 | 4 | 17 | | 19 | 4 | 16 | 1551.7889 | -0.0010 | 0.1520E-01 |
| 6 | 30 | 11 | 19 | | 29 | 10 | 20 | 1548.4261 | | 0.8587E-04 | 3 | 20 | 4 | 16 | | 19 | 4 | 15 | 1551.8593 | -0.0010 | 0.1519E-01 |
| 3 | 19 | 3 | 17 | | 18 | 3 | 16 | 1548.7015 | 0.0005 | 0.7131E-01 | 3 | 20 | 12 | 8 | | 19 | 12 | 7 | 1551.9224 | | 0.1456E-03 |
| 6 | 22 | 13 | 10 | | 22 | 12 | 11 | 1548.7188 | | 0.5787E-04 | 3 | 20 | 12 | 9 | | 19 | 12 | 8 | 1551.9224 | | 0.1456E-03 |
| 6 | 22 | 13 | 9 | | 22 | 12 | 10 | 1548.7188 | | 0.5787E-04 | 6 | 22 | 6 | 16 | | 21 | 3 | 19 | 1551.9828 | | 0.2048E-02 |
| 3 | 21 | 1 | 21 | | 20 | 1 | 20 | 1548.7375 | 0.0002 | 0.8325E-01 | 6 | 24 | 6 | 19 | | 23 | 3 | 20 | 1551.9799 | | 0.4448E-03 |
| 3 | 19 | 1 | 18 | | 18 | 1 | 17 | 1548.8475 | 0.0001 | 0.1013E+00 | 3 | 21 | 2 | 26 | | 20 | 2 | 19 | 1552.0876 | 0.0008 | 0.2198E-01 |
| 3 | 17 | 13 | 4 | | 16 | 13 | 3 | 1548.9460 | | 0.1503E-03 | 3 | 20 | 3 | 17 | | 19 | 3 | 16 | 1552.1392 | 0.0003 | 0.6069E-01 |
| 3 | 17 | 13 | 5 | | 16 | 13 | 4 | 1548.9460 | | 0.1503E-03 | 3 | 24 | 11 | 13 | | 23 | 11 | 12 | 1552.3026 | | 0.8221E-03 |
| 3 | 18 | 7 | 12 | | 17 | 7 | 11 | 1548.9491 | -0.0097* | 0.1304E-01 | 3 | 24 | 11 | 14 | | 23 | 11 | 13 | 1552.3026 | | 0.8221E-03 |
| 3 | 18 | 7 | 11 | | 17 | 7 | 10 | 1548.9491 | -0.0097* | 0.1304E-01 | 3 | 20 | 5 | 16 | | 19 | 5 | 15 | 1552.3972 | 0.0009 | 0.3022E-01 |
| 3 | 21 | 0 | 21 | | 20 | 0 | 20 | 1549.0087 | -0.0018 | 0.2781E-01 | 3 | 20 | 5 | 15 | | 19 | 5 | 14 | 1552.3999 | -0.0017 | 0.3022E-01 |
| 3 | 19 | 4 | 16 | | 18 | 4 | 15 | 1549.1497 | -0.0009 | 0.1813E-01 | 3 | 18 | 9 | 10 | | 17 | 9 | 9 | 1552.6025 | | 0.1858E-02 |
| 3 | 19 | 4 | 15 | | 18 | 4 | 14 | 1549.1982 | -0.0010 | 0.1812E-01 | 3 | 18 | 9 | 9 | | 17 | 9 | 8 | 1552.6025 | | 0.1858E-02 |
| 3 | 22 | 11 | 11 | | 21 | 11 | 10 | 1549.3191 | | 0.9540E-03 | 4 | 19 | 10 | 9 | | 18 | 7 | 11 | 1552.6255 | | 0.4095E-03 |
| 3 | 22 | 11 | 12 | | 21 | 11 | 11 | 1549.3191 | | 0.9540E-03 | 4 | 19 | 10 | 10 | | 18 | 7 | 12 | 1552.6255 | | 0.4095E-03 |
| 3 | 19 | 3 | 16 | | 18 | 3 | 15 | 1549.3490 | 0.0003 | 0.7256E-01 | 3 | 19 | 13 | 7 | | 18 | 13 | 6 | 1552.8879 | | 0.1440E-03 |
| 6 | 22 | 6 | 17 | | 21 | 3 | 18 | 1549.4340 | | 0.7203E-03 | 3 | 19 | 13 | 6 | | 18 | 13 | 5 | 1552.8879 | | 0.1440E-03 |
| 3 | 17 | 9 | 9 | | 18 | 9 | 8 | 1549.6552 | | 0.2122E-02 | 3 | 20 | 2 | 18 | | 19 | 2 | 17 | 1552.9694 | 0.0012 | 0.2489E-01 |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | | | | |
|----|----|----|----|---|----|----|-----------|-----------|------------|------------|------------|------------|----|------------|----|----|----|-----------|-----------|------------|------------|------------|------------|--|------------|
| 6 | 25 | 8 | 20 | | 24 | 3 | 21 | 1553.0410 | | 0.3476E-03 | 6 | 28 | 1 | 27 | | 28 | 1 | 28 | 1558.2518 | | 0.6088E-04 | | | | |
| 6 | 13 | 12 | 1 | | 12 | 11 | 2 | 1553.1084 | | 0.1617E-02 | 6 | 14 | 12 | 3 | | 13 | 11 | 2 | 1558.4928 | | 0.1096E-02 | | | | |
| 6 | 13 | 12 | 2 | | 12 | 11 | 1 | 1553.1084 | | 0.1817E-02 | 6 | 14 | 12 | 2 | | 13 | 11 | 3 | 1558.4928 | | 0.1096E-02 | | | | |
| 3 | 23 | 1 | 23 | | 22 | 1 | 22 | 1553.1868 | | 0.5589E-01 | 3 | 22 | 3 | 20 | | 21 | 3 | 19 | 1558.5387 | | 0.3995E-01 | | | | |
| 3 | 19 | 8 | 12 | | 18 | 8 | 11 | 1553.1876 | | 0.1674E-02 | 3 | 9 | 2 | 7 | | 8 | 6 | 8 | 1558.5957 | | 0.1285E-03 | | | | |
| 3 | 20 | 6 | 15 | | 19 | 6 | 14 | 1553.2468 | | 0.0017 | 0 | 21 | 16 | 11 | | 20 | 7 | 14 | 1558.7070 | | 0.2591E-02 | | | | |
| 3 | 20 | 6 | 14 | | 19 | 6 | 13 | 1553.2458 | | 0.0017 | 0 | 0.0008E-02 | 0 | 21 | 13 | 8 | | 20 | 7 | 13 | 1558.7070 | | 0.2591E-02 | | |
| 3 | 23 | 6 | 23 | | 22 | 6 | 22 | 1553.4043 | | -0.0026 | 0 | 0.1842E-01 | 0 | 21 | 13 | 9 | | 20 | 13 | 8 | 1558.7076 | | 0.1177E-03 | | |
| 3 | 27 | 1 | 28 | | 27 | 1 | 27 | 1553.5679 | | 0.8246E-04 | 3 | 27 | 11 | 16 | | 28 | 11 | 15 | 1558.7819 | | 0.2926E-03 | | | | |
| 3 | 8 | 2 | 6 | | 7 | 6 | 7 | 1553.6414 | | 0.1012E-03 | 3 | 27 | 11 | 17 | | 26 | 11 | 16 | 1558.7819 | | 0.2926E-03 | | | | |
| 21 | 12 | 10 | 20 | | 12 | 9 | 20 | 1553.6891 | | 0.1268E-03 | 21 | 23 | 2 | 22 | | 22 | 2 | 21 | 1558.9111 | | 0.0009 | | | | |
| 21 | 12 | 9 | 20 | | 12 | 8 | 19 | 1553.6892 | | 0.0009 | 0 | 0.0008E-02 | 0 | 21 | 13 | 8 | | 20 | 7 | 13 | 1558.7078 | | 0.0011 | | |
| 25 | 11 | 14 | 24 | | 11 | 13 | 1553.7958 | | 0.4909E-03 | 25 | 23 | 12 | 12 | | 22 | 12 | 11 | 1557.1139 | | 0.8998E-04 | | | | | |
| 25 | 11 | 15 | 24 | | 11 | 14 | 1553.7958 | | 0.4909E-03 | 25 | 23 | 12 | 11 | | 22 | 12 | 10 | 1557.1139 | | 0.8998E-04 | | | | | |
| 21 | 3 | 19 | 20 | | 3 | 18 | 1553.9235 | | 0.0004 | 0 | 4.921E-01 | 0 | 21 | 7 | 14 | | 21 | 4 | 17 | 1557.2352 | | -0.0004 | | | |
| 26 | 6 | 21 | 25 | | 3 | 22 | 1553.9554 | | 0.2707E-03 | 26 | 6 | 1739E-02 | 0 | 0.1256E-01 | 0 | 21 | 7 | 15 | | 20 | 7 | 13 | 1557.3113 | | 0.1444E-01 |
| 23 | 8 | 17 | 22 | | 3 | 20 | 1554.0283 | | 0.1730E-02 | 23 | 25 | 1 | 25 | | 24 | 1 | 24 | 1557.3113 | | 0.1444E-01 | | | | | |
| 28 | 7 | 13 | 19 | | 7 | 12 | 1554.2738 | | 0.7728E-02 | 28 | 21 | 3 | 19 | | 21 | 1 | 20 | 1557.6069 | | 0.3537E-01 | | | | | |
| 28 | 7 | 14 | 19 | | 7 | 13 | 1554.2738 | | 0.7728E-02 | 28 | 22 | 3 | 20 | | 22 | 1 | 21 | 1557.6069 | | 0.3537E-01 | | | | | |
| 21 | 4 | 18 | 20 | | 4 | 17 | 1554.4389 | | -0.0010 | 0 | 1.322E-03 | 0 | 25 | 9 | 25 | | 24 | 9 | 24 | 1557.6429 | | 0.5292E-02 | | | |
| 24 | 5 | 20 | 23 | | 6 | 23 | 1554.4666 | | 0.1730E-02 | 24 | 20 | 3 | 18 | | 20 | 1 | 19 | 1557.6429 | | 0.1730E-01 | | | | | |
| 3 | 22 | 2 | 21 | | 2 | 20 | 1554.5043 | | 0.1794E-01 | 3 | 22 | 5 | 18 | | 21 | 5 | 17 | 1557.7295 | | 0.1478E-03 | | | | | |
| 3 | 21 | 4 | 17 | | 26 | 4 | 16 | 1554.5378 | | -0.0011 | 0 | 1.264E-01 | 0 | 22 | 5 | 17 | | 21 | 5 | 16 | 1557.7295 | | 0.2036E-01 | | |
| 21 | 4 | 17 | 26 | | 3 | 23 | 1554.7226 | | 0.2100E-03 | 21 | 23 | 3 | 21 | | 23 | 3 | 21 | 1557.7366 | | 0.2036E-01 | | | | | |
| 27 | 13 | 8 | 19 | | 13 | 7 | 1554.7979 | | 0.1322E-03 | 27 | 22 | 3 | 20 | | 22 | 1 | 21 | 1557.7366 | | 0.1216E-03 | | | | | |
| 29 | 13 | 7 | 19 | | 13 | 6 | 1554.7979 | | 0.1322E-03 | 29 | 22 | 3 | 19 | | 21 | 3 | 18 | 1557.7823 | | 0.1216E-03 | | | | | |
| 20 | 10 | 11 | 19 | | 7 | 13 | 1554.8667 | | 0.1785E-02 | 20 | 24 | 3 | 22 | | 24 | 3 | 22 | 1557.8177 | | 0.0005 | | | | | |
| 26 | 18 | 16 | 19 | | 7 | 12 | 1554.8667 | | 0.1785E-02 | 26 | 25 | 6 | 19 | | 24 | 3 | 22 | 1558.0837 | | 0.0004 | | | | | |
| 21 | 3 | 18 | 26 | | 3 | 17 | 1554.8667 | | 0.0004 | 0 | 4.997E-01 | 0 | 28 | 11 | 17 | | 27 | 11 | 18 | 1558.2734 | | 0.2213E-03 | | | |
| 21 | 5 | 17 | 28 | | 5 | 16 | 1555.0577 | | 0.0012 | 0 | 2.499E-01 | 0 | 28 | 11 | 18 | | 27 | 11 | 17 | 1558.2734 | | 0.4053E-01 | | | |
| 21 | 5 | 16 | 28 | | 5 | 15 | 1555.0629 | | -0.0030 | 0 | 2.499E-01 | 0 | 28 | 11 | 18 | | 27 | 11 | 17 | 1558.2734 | | 0.4053E-01 | | | |
| 28 | 11 | 18 | 25 | | 11 | 15 | 1555.2891 | | 0.3817E-03 | 28 | 23 | 1 | 22 | | 24 | 1 | 23 | 1558.2819 | | 0.1499E-03 | | | | | |
| 28 | 6 | 23 | 27 | | 3 | 24 | 1555.3464 | | 0.1622E-03 | 28 | 23 | 1 | 22 | | 24 | 3 | 22 | 1558.2819 | | 0.1499E-03 | | | | | |
| 21 | 9 | 11 | 21 | | 12 | 10 | 1555.3464 | | 0.1679E-03 | 21 | 28 | 9 | 12 | | 19 | 9 | 10 | 1558.2819 | | 0.1239E-02 | | | | | |
| 22 | 12 | 11 | 21 | | 12 | 9 | 1555.3993 | | 0.1679E-03 | 22 | 26 | 9 | 12 | | 19 | 9 | 11 | 1558.2819 | | 0.1239E-02 | | | | | |
| 24 | 1 | 24 | 23 | | 1 | 23 | 1555.4001 | | 0.0004 | 0 | 0.0008E-02 | 0 | 25 | 3 | 23 | | 25 | 1 | 24 | 1558.5334 | | 0.2213E-03 | | | |
| 24 | 1 | 24 | 23 | | 1 | 23 | 1555.4001 | | 0.0004 | 0 | 0.0008E-02 | 0 | 23 | 1 | 22 | | 22 | 1 | 21 | 1558.5334 | | 0.2213E-03 | | | |
| 21 | 6 | 15 | 25 | | 6 | 15 | 1555.5825 | | 0.1692E-02 | 21 | 22 | 13 | 9 | | 21 | 13 | 8 | 1558.4838 | | 0.0002 | | | | | |
| 21 | 6 | 14 | 25 | | 6 | 14 | 1555.5825 | | 0.1692E-02 | 21 | 22 | 13 | 9 | | 21 | 13 | 8 | 1558.4838 | | 0.0002 | | | | | |
| 19 | 9 | 11 | 18 | | 9 | 10 | 1555.8898 | | 0.1692E-02 | 19 | 22 | 6 | 17 | | 21 | 6 | 16 | 1558.6237 | | 0.0023 | | | | | |
| 24 | 6 | 24 | 23 | | 6 | 23 | 1555.8898 | | 0.1692E-02 | 24 | 22 | 6 | 16 | | 21 | 6 | 15 | 1558.6237 | | 0.4056E-02 | | | | | |
| 21 | 2 | 19 | 28 | | 2 | 18 | 1555.9325 | | 0.0014 | 0 | 0.2039E-01 | 0 | 17 | 3 | 15 | | 16 | 1558.6237 | | 0.1339E-02 | | | | | |
| 29 | 8 | 13 | 25 | | 8 | 12 | 1555.9325 | | 0.0014 | 0 | 0.4466E-01 | 0 | 21 | 8 | 13 | | 20 | 8 | 12 | 1558.6237 | | 0.1427E-03 | | | |
| 21 | 6 | 16 | 28 | | 6 | 15 | 1555.9293 | | 0.0021 | 0 | 0.4975E-02 | 0 | 21 | 8 | 14 | | 20 | 8 | 13 | 1558.5979 | | 0.1676E-03 | | | |
| 21 | 6 | 14 | 28 | | 6 | 14 | 1555.9293 | | 0.0020 | 0 | 0.4975E-02 | 0 | 21 | 8 | 14 | | 20 | 8 | 13 | 1558.5979 | | 0.1676E-03 | | | |
| 20 | 8 | 12 | 19 | | 8 | 11 | 1555.9923 | | 0.1410E-02 | 20 | 24 | 12 | 13 | | 23 | 12 | 12 | 1558.8134 | | 0.7360E-04 | | | | | |
| 22 | 1 | 21 | 21 | | 1 | 20 | 1555.9923 | | 0.1410E-02 | 22 | 24 | 12 | 12 | | 23 | 12 | 12 | 1558.8134 | | 0.7360E-04 | | | | | |
| 24 | 6 | 18 | 23 | | 3 | 21 | 1558.0981 | | 0.0008 | 0 | 0.6036E-01 | 0 | 22 | 10 | 13 | | 21 | 7 | 15 | 1558.9142 | | 0.7055E-03 | | | |
| 26 | 8 | 18 | 23 | | 3 | 21 | 1558.0981 | | 0.1472E-02 | 26 | 23 | 3 | 21 | | 22 | 3 | 20 | 1558.9142 | | 0.3196E-01 | | | | | |
| 3 | 3 | 3 | 3 | | 3 | 3 | 1558.0981 | | 0.9581E-04 | 3 | 23 | 3 | 21 | | 22 | 3 | 20 | 1558.1569 | | 0.7978E-04 | | | | | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 3 | 16 | 3 | 14 | 16 | 1 | 15 | | 1559.1707 | | 0.1336E-03 | 3 | 23 | 7 | 18 | 22 | 7 | 15 | 1582.7078 | | 0.4827E-02 | |
| 3 | 24 | 2 | 23 | 23 | 2 | 22 | | 1559.3077 | 0.0013 | 0.1147E-01 | 3 | 23 | 7 | 17 | 22 | 7 | 18 | 1582.7078 | | 0.4827E-02 | |
| 6 | 25 | 5 | 21 | 24 | 0 | 24 | | 1559.6921 | | 0.4778E-03 | 3 | 25 | 1 | 24 | 24 | 1 | 23 | 1583.0178 | -0.0004 | 0.2785E-01 | |
| 3 | 15 | 3 | 13 | 15 | 1 | 14 | | 1559.7050 | | 0.1210E-03 | 3 | 11 | 2 | 9 | 16 | 0 | 10 | 1583.0638 | | 0.1701E-03 | |
| 3 | 10 | 2 | 8 | 9 | 0 | 9 | | 1559.7266 | | 0.1525E-03 | 3 | 24 | 5 | 20 | 23 | 5 | 19 | 1583.1058 | -0.0011 | 0.1294E-01 | |
| 3 | 23 | 4 | 20 | 22 | 4 | 19 | | 1559.7625 | -0.0012 | 0.8194E-02 | 3 | 24 | 5 | 19 | 23 | 5 | 18 | 1583.1201 | -0.0005 | 0.1294E-01 | |
| 3 | 29 | 11 | 18 | 28 | 11 | 17 | | 1559.7635 | | 0.1650E-03 | 4 | 24 | 10 | 14 | 23 | 7 | 16 | 1583.1527 | | 0.1881E-03 | |
| 3 | 29 | 11 | 19 | 28 | 11 | 18 | | 1559.7635 | | 0.1660E-03 | 4 | 24 | 10 | 15 | 23 | 7 | 17 | 1583.1527 | | 0.1881E-03 | |
| 3 | 26 | 1 | 26 | 25 | 1 | 25 | | 1559.8071 | 0.0007 | 0.2765E-01 | 6 | 18 | 12 | 4 | 15 | 11 | 5 | 1583.1539 | | 0.5044E-03 | |
| 6 | 15 | 12 | 3 | 14 | 11 | 4 | | 1559.8381 | | 0.7442E-03 | 6 | 18 | 12 | 5 | 15 | 11 | 4 | 1583.1539 | | 0.5044E-03 | |
| 3 | 15 | 12 | 4 | 14 | 11 | 3 | | 1559.8381 | | 0.7442E-03 | 3 | 24 | 3 | 21 | 23 | 3 | 20 | 1583.6129 | 0.0006 | 0.2551E-01 | |
| 3 | 28 | 0 | 26 | 25 | 0 | 25 | | 1559.8676 | | 0.9170E-02 | 3 | 24 | 2 | 22 | 23 | 2 | 21 | 1583.9359 | 0.0028 | 0.1028E-01 | |
| 3 | 27 | 3 | 25 | 27 | 1 | 26 | | 1559.9384 | | 0.6805E-04 | 3 | 24 | 6 | 19 | 23 | 6 | 18 | 1584.0449 | | 0.2580E-02 | |
| 3 | 23 | 4 | 19 | 22 | 4 | 18 | | 1559.9528 | -0.0012 | 0.8179E-02 | 3 | 24 | 6 | 18 | 23 | 6 | 17 | 1584.0453 | | 0.2580E-02 | |
| 3 | 22 | 7 | 15 | 21 | 7 | 14 | | 1559.9767 | | 0.5889E-02 | 3 | 26 | 2 | 25 | 25 | 2 | 24 | 1584.0714 | | 0.8952E-02 | |
| 3 | 22 | 7 | 16 | 21 | 7 | 15 | | 1559.9767 | | 0.5889E-02 | 3 | 25 | 13 | 13 | 24 | 13 | 12 | 1584.1645 | | 0.6835E-04 | |
| 6 | 28 | 6 | 20 | 25 | 3 | 23 | | 1580.2740 | | 0.1037E-02 | 3 | 25 | 13 | 12 | 24 | 13 | 11 | 1584.1545 | | 0.5835E-04 | |
| 3 | 14 | 3 | 12 | 14 | 1 | 13 | | 1580.2839 | | 0.1038E-03 | 3 | 28 | 1 | 28 | 27 | 1 | 27 | 1584.1893 | 0.0009 | 0.1628E-01 | |
| 3 | 23 | 5 | 19 | 22 | 5 | 18 | | 1580.4122 | -0.0008 | 0.1835E-01 | 3 | 28 | 6 | 28 | 27 | 6 | 27 | 1584.2305 | | 0.5429E-02 | |
| 3 | 23 | 5 | 18 | 22 | 5 | 17 | | 1580.4219 | -0.0009 | 0.1835E-01 | 3 | 25 | 3 | 23 | 24 | 3 | 22 | 1584.3884 | -0.0001 | 0.1958E-01 | |
| 3 | 23 | 13 | 11 | 22 | 13 | 10 | | 1580.4689 | | 0.8844E-04 | 3 | 23 | 8 | 15 | 22 | 8 | 14 | 1584.4774 | | 0.7624E-03 | |
| 3 | 23 | 13 | 10 | 22 | 13 | 9 | | 1580.4689 | | 0.8844E-04 | 3 | 23 | 8 | 16 | 22 | 8 | 15 | 1584.4774 | | 0.7624E-03 | |
| 3 | 25 | 12 | 13 | 24 | 12 | 12 | | 1580.4987 | | 0.5915E-04 | 3 | 22 | 9 | 14 | 21 | 9 | 13 | 1584.5038 | | 0.8984E-03 | |
| 3 | 25 | 12 | 14 | 24 | 12 | 13 | | 1580.4987 | | 0.5915E-04 | 3 | 22 | 9 | 13 | 21 | 9 | 12 | 1584.5038 | | 0.8984E-03 | |
| 3 | 23 | 3 | 20 | 22 | 3 | 19 | | 1580.7026 | 0.0006 | 0.3239E-01 | 6 | 28 | 6 | 22 | 27 | 3 | 25 | 1584.5398 | | 0.7114E-03 | |
| 3 | 24 | 1 | 23 | 23 | 1 | 22 | | 1580.7281 | -0.0001 | 0.3568E-01 | 6 | 28 | 6 | 22 | 25 | 0 | 25 | 1584.8258 | | 0.8368E-04 | |
| 3 | 28 | 3 | 26 | 28 | 1 | 27 | | 1580.8788 | | 0.5344E-04 | 3 | 25 | 4 | 22 | 24 | 4 | 21 | 1585.1157 | | 0.5057E-02 | |
| 3 | 13 | 3 | 11 | 13 | 1 | 12 | | 1580.9111 | | 0.7454E-04 | 4 | 25 | 10 | 16 | 24 | 7 | 18 | 1585.2319 | | 0.1180E-03 | |
| 4 | 23 | 10 | 13 | 22 | 7 | 15 | | 1581.0498 | | 0.3374E-03 | 4 | 25 | 10 | 15 | 24 | 7 | 17 | 1585.2319 | | 0.1180E-03 | |
| 4 | 23 | 10 | 14 | 22 | 7 | 16 | | 1581.0498 | | 0.3374E-03 | 3 | 28 | 1 | 25 | 25 | 1 | 24 | 1585.2853 | -0.0005 | 0.2147E-01 | |
| 3 | 23 | 2 | 21 | 22 | 2 | 20 | | 1581.2194 | 0.0021 | 0.1310E-01 | 3 | 25 | 4 | 21 | 24 | 4 | 20 | 1585.4552 | | 0.5040E-02 | |
| 3 | 30 | 11 | 19 | 29 | 11 | 18 | | 1581.2517 | | 0.1215E-03 | 3 | 24 | 7 | 18 | 23 | 7 | 17 | 1585.4639 | | 0.3900E-02 | |
| 3 | 30 | 11 | 20 | 29 | 11 | 19 | | 1581.2517 | | 0.1215E-03 | 3 | 24 | 7 | 17 | 23 | 7 | 16 | 1585.4639 | | 0.3900E-02 | |
| 3 | 23 | 8 | 18 | 22 | 8 | 17 | | 1581.3290 | | 0.3259E-02 | 3 | 25 | 5 | 21 | 24 | 5 | 20 | 1585.8094 | -0.0020 | 0.1010E-01 | |
| 3 | 23 | 6 | 17 | 22 | 6 | 16 | | 1581.3293 | | 0.3259E-02 | 3 | 25 | 5 | 20 | 24 | 5 | 19 | 1585.8306 | -0.0007 | 0.1010E-01 | |
| 3 | 12 | 3 | 10 | 12 | 1 | 11 | | 1581.3455 | | 0.6406E-04 | 3 | 29 | 1 | 29 | 28 | 1 | 28 | 1586.3721 | 0.0011 | 0.1226E-01 | |
| 3 | 21 | 9 | 12 | 20 | 9 | 11 | | 1581.5144 | | 0.1106E-02 | 3 | 29 | 0 | 29 | 28 | 0 | 28 | 1586.4015 | | 0.4092E-02 | |
| 3 | 21 | 9 | 13 | 20 | 9 | 12 | | 1581.5144 | | 0.1106E-02 | 3 | 27 | 2 | 26 | 26 | 2 | 25 | 1586.4393 | | 0.5307E-02 | |
| 3 | 22 | 8 | 14 | 21 | 8 | 13 | | 1581.6379 | | 0.9508E-03 | 6 | 17 | 12 | 6 | 16 | 11 | 5 | 1586.4459 | | 0.3399E-03 | |
| 3 | 22 | 8 | 15 | 21 | 8 | 14 | | 1581.6379 | | 0.9508E-03 | 6 | 17 | 12 | 5 | 16 | 11 | 6 | 1586.4459 | | 0.3399E-03 | |
| 3 | 25 | 2 | 24 | 24 | 2 | 23 | | 1581.6945 | 0.0019 | 0.8988E-02 | 3 | 26 | 3 | 22 | 24 | 3 | 21 | 1586.5438 | 0.0008 | 0.1981E-01 | |
| 3 | 24 | 3 | 22 | 23 | 3 | 21 | | 1581.7720 | 0.0002 | 0.2520E-01 | 3 | 26 | 2 | 23 | 24 | 2 | 22 | 1586.8300 | 0.0030 | 0.7958E-02 | |
| 3 | 27 | 1 | 27 | 26 | 1 | 26 | | 1582.0011 | 0.0009 | 0.2135E-01 | 3 | 12 | 2 | 10 | 11 | 0 | 11 | 1586.8345 | | 0.1788E-03 | |
| 3 | 11 | 3 | 9 | 11 | 1 | 10 | | 1582.0049 | | 0.6895E-04 | 6 | 29 | 6 | 23 | 28 | 3 | 28 | 1586.7227 | | 0.5829E-03 | |
| 3 | 27 | 0 | 27 | 26 | 0 | 26 | | 1582.0540 | | 0.7110E-02 | 3 | 25 | 6 | 20 | 24 | 6 | 19 | 1586.7711 | | 0.2014E-02 | |
| 3 | 24 | 13 | 11 | 23 | 13 | 10 | | 1582.3210 | | 0.7171E-04 | 3 | 25 | 8 | 19 | 24 | 6 | 18 | 1586.7719 | | 0.2014E-02 | |
| 3 | 24 | 13 | 12 | 23 | 13 | 11 | | 1582.3210 | | 0.7171E-04 | 3 | 26 | 3 | 24 | 25 | 3 | 23 | 1587.0038 | -0.0004 | 0.1500E-01 | |
| 6 | 27 | 6 | 21 | 26 | 3 | 24 | | 1582.3922 | | 0.8619E-03 | 4 | 28 | 10 | 18 | 25 | 7 | 18 | 1587.2896 | | 0.7901E-04 | |
| 3 | 24 | 4 | 21 | 23 | 4 | 20 | | 1582.4362 | -0.0013 | 0.6482E-02 | 4 | 28 | 10 | 17 | 25 | 7 | 19 | 1587.2896 | | 0.7901E-04 | |
| 3 | 10 | 3 | 8 | 10 | 1 | 9 | | 1582.6132 | | 0.5509E-04 | 3 | 24 | 8 | 17 | 23 | 8 | 16 | 1587.3269 | | 0.6023E-03 | |
| 3 | 24 | 4 | 20 | 23 | 4 | 19 | | 1582.6923 | -0.0012 | 0.6468E-02 | 3 | 24 | 8 | 16 | 23 | 8 | 15 | 1587.3269 | | 0.6023E-03 | |

| V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH | V | J | Ka | Kc | - | J | Ka | Kc | FREQUENCY | RESIDUAL | STRENGTH |
|---|----|----|----|----|----|----|----|-----------|----------|------------|---|----|----|----|----|----|----|-----------|-----------|------------|----------|
| 3 | 23 | 9 | 16 | 22 | 9 | 14 | | 1567.5007 | | 0.7187E-03 | 4 | 30 | 7 | 24 | 29 | 2 | 28 | 1571.7874 | | 0.7062E-04 | |
| 3 | 23 | 9 | 14 | 22 | 9 | 13 | | 1567.5007 | | 0.7187E-03 | 3 | 27 | 2 | 25 | 26 | 2 | 24 | 1571.9377 | | 0.4578E-02 | |
| 3 | 27 | 1 | 26 | 28 | 1 | 25 | | 1567.5349 | -0.0007 | 0.1635E-01 | 3 | 29 | 1 | 28 | 28 | 1 | 27 | 1571.9987 | -0.0007 | 0.9139E-02 | |
| 3 | 28 | 4 | 23 | 25 | 4 | 22 | | 1567.8000 | | 0.3892E-02 | 3 | 28 | 3 | 26 | 27 | 3 | 25 | 1572.2300 | -0.0017 | 0.8442E-02 | |
| 3 | 25 | 7 | 19 | 24 | 7 | 18 | | 1568.2358 | | 0.3071E-02 | 3 | 27 | 6 | 22 | 26 | 6 | 21 | 1572.2539 | | 0.1177E-02 | |
| 3 | 25 | 7 | 18 | 24 | 7 | 17 | | 1568.2358 | | 0.3071E-02 | 3 | 27 | 6 | 21 | 26 | 6 | 20 | 1572.2557 | | 0.1177E-02 | |
| 3 | 26 | 4 | 22 | 25 | 4 | 21 | | 1568.2434 | | 0.3874E-02 | 3 | 27 | 3 | 24 | 26 | 3 | 23 | 1572.4447 | 0.0005 | 0.1144E-01 | |
| 6 | 15 | 14 | 2 | 15 | 13 | 3 | | 1568.4364 | | 0.7475E-04 | 6 | 19 | 12 | 7 | 18 | 11 | 8 | 1572.9738 | | 0.1502E-03 | |
| 6 | 15 | 14 | 1 | 15 | 13 | 2 | | 1568.4364 | | 0.7475E-04 | 6 | 19 | 12 | 8 | 18 | 11 | 7 | 1572.9738 | | 0.1502E-03 | |
| 3 | 26 | 5 | 22 | 25 | 5 | 21 | | 1568.5237 | | 0.7776E-02 | 3 | 26 | 8 | 19 | 25 | 8 | 18 | 1573.0526 | | 0.3599E-03 | |
| 3 | 30 | 1 | 30 | 29 | 1 | 29 | | 1568.5500 | | 0.9125E-02 | 3 | 26 | 8 | 18 | 25 | 8 | 17 | 1573.0526 | | 0.3599E-03 | |
| 3 | 26 | 5 | 21 | 25 | 5 | 20 | | 1568.5538 | | 0.7774E-02 | 3 | 28 | 4 | 25 | 27 | 4 | 24 | 1573.1785 | | 0.2213E-02 | |
| 3 | 30 | 0 | 30 | 29 | 0 | 29 | | 1568.5680 | | 0.3046E-02 | 3 | 25 | 9 | 17 | 24 | 9 | 16 | 1573.5128 | | 0.4401E-03 | |
| 6 | 16 | 14 | 2 | 18 | 13 | 3 | | 1568.7287 | | 0.8953E-04 | 3 | 25 | 9 | 16 | 24 | 9 | 15 | 1573.5128 | | 0.4401E-03 | |
| 6 | 16 | 14 | 3 | 18 | 13 | 4 | | 1568.7287 | | 0.8953E-04 | 3 | 30 | 2 | 29 | 29 | 2 | 28 | 1573.5236 | | 0.2126E-02 | |
| 3 | 28 | 2 | 27 | 27 | 2 | 26 | | 1568.7996 | | 0.3996E-02 | 3 | 27 | 7 | 21 | 26 | 7 | 20 | 1573.8180 | | 0.1807E-02 | |
| 6 | 30 | 6 | 24 | 29 | 3 | 27 | | 1568.9486 | | 0.4741E-03 | 3 | 27 | 7 | 20 | 26 | 7 | 19 | 1573.8180 | | 0.1807E-02 | |
| 6 | 17 | 14 | 3 | 17 | 13 | 4 | | 1569.0308 | | 0.9443E-04 | 3 | 28 | 4 | 24 | 27 | 4 | 23 | 1573.9015 | | 0.2197E-02 | |
| 6 | 17 | 14 | 4 | 17 | 13 | 5 | | 1569.0308 | | 0.9443E-04 | 3 | 28 | 5 | 24 | 27 | 5 | 23 | 1573.9810 | | 0.4424E-02 | |
| 3 | 28 | 2 | 24 | 25 | 2 | 23 | | 1569.2983 | | 0.8078E-02 | 3 | 28 | 5 | 23 | 27 | 5 | 22 | 1574.0399 | | 0.4422E-02 | |
| 4 | 27 | 10 | 17 | 26 | 7 | 19 | | 1569.3258 | | 0.5489E-04 | 3 | 30 | 1 | 29 | 29 | 1 | 28 | 1574.2159 | -0.0010* | 0.6710E-02 | |
| 4 | 27 | 10 | 18 | 26 | 7 | 20 | | 1569.3259 | | 0.5489E-04 | 3 | 28 | 2 | 26 | 27 | 2 | 25 | 1574.5450 | | 0.3404E-02 | |
| 6 | 18 | 14 | 4 | 18 | 13 | 5 | | 1569.3483 | | 0.9247E-04 | 3 | 14 | 2 | 12 | 13 | 0 | 13 | 1574.5673 | | 0.1679E-03 | |
| 6 | 18 | 14 | 5 | 18 | 13 | 6 | | 1569.3483 | | 0.9247E-04 | 3 | 29 | 3 | 27 | 28 | 3 | 26 | 1574.8408 | -0.0027 | 0.6199E-02 | |
| 3 | 28 | 3 | 23 | 25 | 3 | 22 | | 1569.4897 | 0.0006 | 0.1516E-01 | 3 | 28 | 6 | 23 | 27 | 6 | 22 | 1575.0098 | | 0.8815E-03 | |
| 3 | 28 | 6 | 21 | 25 | 6 | 20 | | 1569.5076 | | 0.1550E-02 | 3 | 28 | 6 | 22 | 27 | 6 | 21 | 1575.0125 | | 0.8815E-03 | |
| 3 | 28 | 6 | 20 | 25 | 6 | 19 | | 1569.5097 | | 0.1550E-02 | 3 | 28 | 3 | 25 | 27 | 3 | 24 | 1575.4023 | -0.0001 | 0.8516E-02 | |
| 3 | 27 | 3 | 25 | 26 | 3 | 24 | | 1569.6177 | -0.0010 | 0.1134E-01 | 6 | 13 | 13 | 1 | 12 | 12 | 0 | 1575.6299 | | 0.3865E-03 | |
| 6 | 19 | 14 | 6 | 19 | 13 | 7 | | 1569.6783 | | 0.8606E-04 | 6 | 13 | 13 | 0 | 12 | 12 | 1 | 1575.6299 | | 0.3865E-03 | |
| 6 | 19 | 14 | 5 | 19 | 13 | 6 | | 1569.6783 | | 0.8606E-04 | 3 | 29 | 4 | 26 | 28 | 4 | 25 | 1575.8654 | | 0.1637E-02 | |
| 6 | 18 | 12 | 6 | 17 | 11 | 7 | | 1569.7181 | | 0.2272E-03 | 3 | 27 | 8 | 19 | 28 | 8 | 18 | 1575.9272 | | 0.2724E-03 | |
| 6 | 18 | 12 | 7 | 17 | 11 | 6 | | 1569.7181 | | 0.2272E-03 | 3 | 27 | 8 | 20 | 28 | 8 | 19 | 1575.9272 | | 0.2724E-03 | |
| 3 | 28 | 1 | 27 | 27 | 1 | 26 | | 1569.7708 | -0.0004 | 0.1230E-01 | 6 | 20 | 12 | 8 | 19 | 11 | 9 | 1576.2148 | | 0.9813E-04 | |
| 6 | 20 | 14 | 6 | 28 | 13 | 7 | | 1570.0204 | | 0.7708E-04 | 6 | 20 | 12 | 9 | 19 | 11 | 8 | 1576.2148 | | 0.9813E-04 | |
| 6 | 20 | 14 | 7 | 20 | 13 | 8 | | 1570.0204 | | 0.7708E-04 | 3 | 26 | 9 | 17 | 25 | 9 | 16 | 1576.5261 | | 0.3372E-03 | |
| 3 | 25 | 8 | 17 | 24 | 8 | 16 | | 1570.1855 | | 0.4688E-03 | 3 | 28 | 9 | 18 | 25 | 9 | 17 | 1576.5261 | | 0.3372E-03 | |
| 3 | 25 | 8 | 18 | 24 | 8 | 17 | | 1570.1855 | | 0.4688E-03 | 3 | 28 | 7 | 22 | 27 | 7 | 21 | 1576.6218 | | 0.1354E-02 | |
| 6 | 21 | 14 | 8 | 21 | 13 | 9 | | 1570.3738 | | 0.6693E-04 | 3 | 28 | 7 | 21 | 27 | 7 | 20 | 1576.8219 | | 0.1354E-02 | |
| 6 | 21 | 14 | 7 | 21 | 13 | 8 | | 1570.3738 | | 0.6693E-04 | 3 | 29 | 5 | 25 | 28 | 5 | 24 | 1576.7230 | | 0.3270E-02 | |
| 3 | 13 | 2 | 11 | 12 | 0 | 12 | | 1570.4628 | | 0.1779E-03 | 3 | 29 | 4 | 25 | 28 | 4 | 24 | 1576.7734 | | 0.1621E-02 | |
| 3 | 27 | 4 | 24 | 26 | 4 | 23 | | 1570.4875 | | 0.2955E-02 | 3 | 29 | 5 | 24 | 28 | 5 | 23 | 1576.8038 | | 0.3268E-02 | |
| 3 | 24 | 9 | 15 | 23 | 9 | 14 | | 1570.5042 | | 0.5885E-03 | 3 | 29 | 2 | 27 | 28 | 2 | 26 | 1577.1176 | | 0.2498E-02 | |
| 3 | 24 | 9 | 16 | 23 | 9 | 15 | | 1570.5042 | | 0.5885E-03 | 3 | 30 | 3 | 28 | 29 | 3 | 27 | 1577.4508 | | 0.4487E-02 | |
| 6 | 22 | 14 | 9 | 22 | 13 | 10 | | 1570.7379 | | 0.5882E-04 | 3 | 29 | 6 | 24 | 28 | 6 | 23 | 1577.7751 | | 0.6515E-03 | |
| 6 | 22 | 14 | 8 | 22 | 13 | 9 | | 1570.7379 | | 0.5882E-04 | 3 | 29 | 6 | 23 | 28 | 6 | 22 | 1577.7791 | -0.0006 | 0.6514E-03 | |
| 3 | 26 | 7 | 20 | 25 | 7 | 19 | | 1571.0204 | | 0.2375E-02 | 3 | 29 | 3 | 26 | 28 | 3 | 25 | 1578.3569 | | 0.8251E-02 | |
| 3 | 26 | 7 | 19 | 25 | 7 | 18 | | 1571.0204 | | 0.2375E-02 | 6 | 14 | 13 | 1 | 13 | 12 | 2 | 1578.4857 | | 0.3037E-03 | |
| 3 | 27 | 4 | 23 | 26 | 4 | 22 | | 1571.0583 | | 0.2938E-02 | 6 | 14 | 13 | 2 | 13 | 12 | 1 | 1578.4857 | | 0.3037E-03 | |
| 3 | 29 | 2 | 28 | 28 | 2 | 27 | | 1571.1559 | | 0.2962E-02 | 3 | 30 | 4 | 27 | 29 | 4 | 26 | 1578.5518 | | 0.1194E-02 | |
| 3 | 27 | 5 | 23 | 26 | 5 | 22 | | 1571.2477 | | 0.5904E-02 | 3 | 28 | 8 | 21 | 27 | 8 | 20 | 1578.8086 | | 0.2034E-03 | |
| 3 | 27 | 5 | 22 | 26 | 5 | 21 | | 1571.2900 | | 0.5902E-02 | 3 | 28 | 8 | 20 | 27 | 8 | 19 | 1578.8086 | | 0.2034E-03 | |

PURE ROTATION TRANSITIONS

| FREQUENCY | | | RESIDUAL | | | UNCERT | | | RESIDUAL | | | FREQUENCY | | | UNCERT | | |
|-------------|---------|--------|-------------|---------|--------|-------------|---------|--------|--------------|----------|--------|-------------|---------|--------|-------------|----------|--------|
| 223788.0981 | 0.1619 | 0.3000 | 210857.8897 | -0.2697 | 0.3000 | 217491.6144 | -0.0444 | 0.3000 | 2265682.1628 | -0.1428 | 0.3000 | 289288.9691 | 0.2091 | 0.4000 | 280807.2488 | -0.4788 | 0.4000 |
| 217764.4378 | -0.0678 | 0.3000 | 300875.4787 | -0.1487 | 0.4000 | 281363.5487 | 0.0013 | 0.4000 | 218005.9890 | 0.2010 | 0.3000 | 298292.3206 | -0.1700 | 0.4000 | 218314.2174 | 0.1726 | 0.3000 |
| 289916.1300 | -0.3100 | 0.4000 | 149063.0891 | 0.2669 | 0.2000 | 290597.6138 | -0.1238 | 0.4000 | 29810.5822 | 0.6178 | 0.2000 | 12767.7965 | 0.0335 | 0.1000 | 49878.8121 | 0.3479 | 0.2000 |
| 25414.6602 | -0.0902 | 0.1000 | 8681.7772 | -0.0172 | 0.2000 | 42363.4216 | 0.0984 | 0.4000 | 8681.7772 | -0.0172 | 0.2000 | 63616.6398 | -0.0398 | 0.1000 | 13361.6379 | -0.1379 | 0.2000 |
| 68.2665 | 0.0007 | 0.0200 | 20794.4711 | -0.2411 | 0.2000 | 8519.6896 | 0.2104 | 0.2000 | 39825.8360 | -0.6950 | 0.2000 | 14114.6641 | 0.1169 | 0.2000 | 6.5258 | 0.0012 | 0.2000 |
| 21999.7010 | 0.1990 | 0.2000 | 3.6807 | 0.0043 | 0.2000 | 32644.6786 | 0.0615 | 0.2000 | 14.7225 | 0.0093 | 0.2000 | 5.2 | 0.0000 | 0.2000 | 1.7764 | -0.0756R | 0.2000 |
| 4.3262 | 0.0038 | 0.0200 | 44.1579 | 0.0261 | 0.2000 | 17.2994 | 0.0696 | 0.2000 | 6.5920 | 0.0025 | 0.2000 | 5.1669 | 0.0091 | 0.2000 | 4.6192 | -0.0018 | 0.2000 |
| 8.2226 | 0.0077 | 0.0200 | 10.7781 | -0.0071 | 0.2000 | 51.8666 | 0.0272 | 0.2000 | 16.7225 | 0.0093 | 0.2000 | 1.9 | 0.0000 | 0.2000 | 23.6920 | -0.0177 | 0.2000 |
| 1.9 | 0.0016 | 0.0200 | 73062.3763 | 0.2637 | 0.1000 | 1.9 | 0.0016 | 0.0200 | 211341.6477 | -0.2577 | 0.3000 | 1.9 | 0.0016 | 0.0200 | 226916.8371 | 0.1029 | 0.3000 |
| 1.9 | 0.0039 | 0.0200 | 281688.3437 | -0.3637 | 0.4000 | 1.9 | 0.0039 | 0.0200 | 15578.4670 | -0.0670 | 0.2000 | 1.9 | 0.0039 | 0.0200 | 16842.9227 | -0.3427 | 0.2000 |
| 1.9 | 0.0038 | 0.0200 | 72727.3225 | -0.0725 | 0.2000 | 1.9 | 0.0038 | 0.0200 | 26233.1981 | -0.7981R | 0.2000 | 1.9 | 0.0038 | 0.0200 | 1.9 | 0.0038 | 0.2000 |
| 1.9 | 0.0077 | 0.0200 | 146389.8284 | -0.0684 | 0.2000 | 1.9 | 0.0077 | 0.0200 | 1.9 | 0.0077 | 0.2000 | 1.9 | 0.0077 | 0.0200 | 217923.1474 | -0.3874 | 0.2000 |
| 1.9 | 0.0078 | 0.0200 | 5.5813 | 0.0043 | 0.2000 | 1.9 | 0.0078 | 0.0200 | 1.9 | 0.0078 | 0.2000 | 1.9 | 0.0078 | 0.0200 | 290282.8282 | -0.4182 | 0.2000 |
| 1.9 | 0.0077 | 0.0200 | 22.3094 | 0.0036 | 0.2000 | 1.9 | 0.0077 | 0.0200 | 1.9 | 0.0077 | 0.2000 | 1.9 | 0.0077 | 0.0200 | 140483.6127 | -0.1627 | 0.2000 |
| 1.9 | 0.0077 | 0.0200 | 66.8611 | 0.0114 | 0.2000 | 1.9 | 0.0077 | 0.0200 | 1.9 | 0.0077 | 0.2000 | 1.9 | 0.0077 | 0.0200 | 1.9 | 0.0077 | 0.2000 |

ORIGINAL PAGE IS
OF POOR QUALITY

Table 4: Energies of all the states up to $J = 30$ in the ground and excited states v_3 , v_4 , and v_6 .

All energies are given in terms of cm^{-1} .

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|---|----|----|--------------|------------|------------|------------|
| 0 | 0 | 0 | 0.00000 | 1167.25675 | 1249.09438 | 1500.17452 |
| 1 | 0 | 1 | 2.42961 | 1169.67483 | 1251.52030 | 1502.61162 |
| 1 | 1 | 1 | 10.53904 | 1176.46542 | 1260.92873 | 1510.77234 |
| 1 | 1 | 0 | 10.70014 | 1176.60672 | 1261.09447 | 1510.94557 |
| 2 | 0 | 2 | 7.28640 | 1174.50873 | 1256.36999 | 1507.48302 |
| 2 | 1 | 2 | 15.23694 | 1181.16042 | 1265.61409 | 1515.47329 |
| 2 | 1 | 1 | 15.72023 | 1181.58431 | 1266.11130 | 1515.99293 |
| 2 | 2 | 1 | 40.04025 | 1202.17832 | 1294.09746 | 1540.46632 |
| 2 | 2 | 0 | 40.04262 | 1202.18059 | 1294.09962 | 1540.46904 |
| 3 | 0 | 3 | 14.56551 | 1181.75389 | 1263.63912 | 1514.78316 |
| 3 | 1 | 3 | 22.28220 | 1188.20134 | 1272.64087 | 1522.52289 |
| 3 | 1 | 2 | 23.24869 | 1189.04908 | 1273.63525 | 1523.56206 |
| 3 | 2 | 2 | 47.32781 | 1209.43305 | 1301.37103 | 1547.77752 |
| 3 | 2 | 1 | 47.33967 | 1209.44443 | 1301.38180 | 1547.79112 |
| 3 | 3 | 1 | 88.23825 | 1244.69031 | 1347.79661 | 1588.97185 |
| 3 | 3 | 0 | 88.23827 | 1244.69033 | 1347.79663 | 1588.97188 |
| 4 | 0 | 4 | 24.25967 | 1191.40354 | 1273.32124 | 1524.50368 |
| 4 | 1 | 4 | 31.67293 | 1197.58628 | 1282.00759 | 1531.91900 |
| 4 | 1 | 3 | 33.28352 | 1198.99904 | 1283.66470 | 1533.65063 |
| 4 | 2 | 3 | 57.04246 | 1219.10361 | 1311.06838 | 1557.52338 |
| 4 | 2 | 2 | 57.07801 | 1219.13773 | 1311.10066 | 1557.56415 |
| 4 | 3 | 2 | 97.95765 | 1254.36809 | 1357.49274 | 1598.72559 |
| 4 | 3 | 1 | 97.95781 | 1254.36823 | 1357.49286 | 1598.72578 |
| 4 | 4 | 1 | 155.16944 | 1304.58065 | 1421.51019 | 1656.32878 |
| 4 | 4 | 0 | 155.16944 | 1304.58065 | 1421.51020 | 1656.32878 |
| 5 | 0 | 5 | 36.35924 | 1203.44867 | 1285.40777 | 1536.63359 |
| 5 | 1 | 5 | 43.40667 | 1209.31281 | 1293.71232 | 1543.65883 |
| 5 | 1 | 4 | 45.82197 | 1211.43150 | 1296.19748 | 1546.25547 |
| 5 | 2 | 4 | 69.18238 | 1231.18793 | 1323.18885 | 1569.70185 |
| 5 | 2 | 3 | 69.26522 | 1231.26740 | 1323.26406 | 1569.79679 |
| 5 | 3 | 3 | 110.10857 | 1266.46626 | 1369.61376 | 1610.91965 |
| 5 | 3 | 2 | 110.10918 | 1266.46683 | 1369.61425 | 1610.92039 |
| 5 | 4 | 2 | 167.31462 | 1316.67463 | 1433.61997 | 1668.52097 |
| 5 | 4 | 1 | 167.31462 | 1316.67459 | 1433.61997 | 1668.52097 |
| 5 | 5 | 1 | 240.77719 | 1382.23009 | 1514.74543 | 1742.47736 |
| 5 | 5 | 0 | 240.77719 | 1382.23009 | 1514.74543 | 1742.47736 |
| 6 | 0 | 6 | 50.85236 | 1217.87823 | 1299.88811 | 1551.15932 |
| 6 | 1 | 6 | 57.48042 | 1223.37796 | 1307.75271 | 1557.73900 |
| 6 | 1 | 5 | 60.86053 | 1226.34299 | 1311.23078 | 1561.37252 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|---|----|----|--------------|------------|------------|------------|
| 6 | 2 | 5 | 83.74534 | 1245.68342 | 1337.73161 | 1584.31035 |
| 6 | 2 | 4 | 83.91061 | 1245.84193 | 1337.88164 | 1584.49968 |
| 6 | 3 | 4 | 124.69197 | 1280.98535 | 1384.16016 | 1625.55510 |
| 6 | 3 | 3 | 124.69380 | 1280.98708 | 1384.16163 | 1625.55733 |
| 6 | 4 | 3 | 181.88994 | 1331.18598 | 1448.15242 | 1683.15286 |
| 6 | 4 | 2 | 181.88995 | 1331.18575 | 1448.15243 | 1683.15287 |
| 6 | 5 | 2 | 255.34563 | 1396.74621 | 1529.26238 | 1757.10980 |
| 6 | 5 | 1 | 255.34563 | 1396.74621 | 1529.26238 | 1757.10980 |
| 6 | 6 | 1 | 344.98797 | 1477.86196 | 1627.12400 | 1847.33986 |
| 6 | 6 | 0 | 344.98797 | 1477.86196 | 1627.12400 | 1847.33986 |
| 7 | 0 | 7 | 67.72516 | 1234.67932 | 1316.74976 | 1568.06511 |
| 7 | 1 | 7 | 73.89072 | 1239.77828 | 1324.12607 | 1574.15558 |
| 7 | 1 | 6 | 78.39485 | 1243.72925 | 1328.76109 | 1578.99678 |
| 7 | 2 | 6 | 100.72863 | 1262.58699 | 1354.69562 | 1601.34581 |
| 7 | 2 | 5 | 101.02500 | 1262.87115 | 1354.96453 | 1601.68509 |
| 7 | 3 | 5 | 141.70894 | 1297.92590 | 1401.13242 | 1642.63305 |
| 7 | 3 | 4 | 141.71351 | 1297.93022 | 1401.13610 | 1642.63862 |
| 7 | 4 | 4 | 198.89602 | 1348.11414 | 1465.10796 | 1700.22513 |
| 7 | 4 | 3 | 198.89605 | 1348.11334 | 1465.10798 | 1700.22516 |
| 7 | 5 | 3 | 272.34279 | 1413.68366 | 1546.19924 | 1774.18164 |
| 7 | 5 | 2 | 272.34279 | 1413.68366 | 1546.19924 | 1774.18164 |
| 7 | 6 | 2 | 361.97658 | 1494.79172 | 1644.03968 | 1864.41689 |
| 7 | 6 | 1 | 361.97658 | 1494.79172 | 1644.03968 | 1864.41689 |
| 7 | 7 | 1 | 467.71298 | 1591.59157 | 1758.35062 | 1970.82226 |
| 7 | 7 | 0 | 467.71298 | 1591.59157 | 1758.35062 | 1970.82226 |
| 8 | 0 | 8 | 86.96208 | 1253.83752 | 1335.97863 | 1587.33338 |
| 8 | 1 | 8 | 92.63367 | 1258.50996 | 1342.82939 | 1592.90419 |
| 8 | 1 | 7 | 98.41973 | 1263.58508 | 1348.78419 | 1599.12221 |
| 8 | 2 | 7 | 120.12912 | 1281.89504 | 1374.07965 | 1620.80465 |
| 8 | 2 | 6 | 120.62035 | 1282.36585 | 1374.52499 | 1621.36647 |
| 8 | 3 | 6 | 161.16055 | 1317.28836 | 1420.53095 | 1662.15445 |
| 8 | 3 | 5 | 161.17059 | 1317.29785 | 1420.53904 | 1662.16667 |
| 8 | 4 | 5 | 218.33356 | 1367.45876 | 1484.48703 | 1719.73856 |
| 8 | 4 | 4 | 218.33365 | 1367.45646 | 1484.48709 | 1719.73866 |
| 8 | 5 | 4 | 291.76895 | 1433.04339 | 1565.55619 | 1793.69320 |
| 8 | 5 | 3 | 291.76895 | 1433.04338 | 1565.55619 | 1793.69320 |
| 8 | 6 | 3 | 381.39235 | 1514.14081 | 1663.37238 | 1883.93356 |
| 8 | 6 | 2 | 381.39235 | 1514.14081 | 1663.37237 | 1883.93356 |
| 8 | 7 | 2 | 487.11802 | 1610.93246 | 1777.65220 | 1990.35438 |
| 8 | 7 | 1 | 487.11802 | 1610.93246 | 1777.65220 | 1990.35438 |
| 8 | 8 | 1 | 608.84866 | 1723.44941 | 1908.17927 | 2112.81486 |
| 8 | 8 | 0 | 608.84866 | 1723.44941 | 1908.17927 | 2112.81486 |
| 9 | 0 | 9 | 108.54640 | 1275.33743 | 1357.55932 | 1608.94544 |
| 9 | 1 | 9 | 113.70501 | 1279.56882 | 1363.85944 | 1613.98008 |
| 9 | 1 | 8 | 120.92896 | 1285.90433 | 1371.29502 | 1621.74164 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 9 | 2 | 8 | 141.94322 | 1303.60348 | 1395.88227 | 1642.68282 |
| 9 | 2 | 7 | 142.70927 | 1304.33731 | 1396.57590 | 1643.55786 |
| 9 | 3 | 7 | 183.04785 | 1339.07308 | 1442.35608 | 1684.11983 |
| 9 | 3 | 6 | 183.06789 | 1339.09201 | 1442.37223 | 1684.14417 |
| 9 | 4 | 6 | 240.20335 | 1389.21977 | 1506.29015 | 1741.69404 |
| 9 | 4 | 5 | 240.20356 | 1389.21411 | 1506.29031 | 1741.69431 |
| 9 | 5 | 5 | 313.62447 | 1454.82646 | 1587.33345 | 1815.64483 |
| 9 | 5 | 4 | 313.62447 | 1454.82643 | 1587.33345 | 1815.64483 |
| 9 | 6 | 4 | 403.23538 | 1535.90951 | 1685.12278 | 1905.88990 |
| 9 | 6 | 3 | 403.23538 | 1535.90951 | 1685.12273 | 1905.88990 |
| 9 | 7 | 3 | 508.94852 | 1632.69115 | 1799.36642 | 2012.32728 |
| 9 | 7 | 2 | 508.94852 | 1632.69115 | 1799.36642 | 2012.32728 |
| 9 | 8 | 2 | 630.66584 | 1745.19761 | 1929.84664 | 2134.82978 |
| 9 | 8 | 1 | 630.66584 | 1745.19761 | 1929.84664 | 2134.82978 |
| 9 | 9 | 1 | 768.27747 | 1873.40747 | 2076.38351 | 2273.19297 |
| 9 | 9 | 0 | 768.27747 | 1873.40747 | 2076.38351 | 2273.19297 |
| 10 | 0 | 10 | 132.46090 | 1299.16327 | 1381.47573 | 1632.88225 |
| 10 | 1 | 10 | 137.10021 | 1302.95045 | 1387.21288 | 1637.37822 |
| 10 | 1 | 9 | 145.91531 | 1310.67974 | 1396.28761 | 1646.84670 |
| 10 | 2 | 9 | 166.16692 | 1327.70772 | 1420.10186 | 1666.97576 |
| 10 | 2 | 8 | 167.30437 | 1328.79663 | 1421.13010 | 1668.27303 |
| 10 | 3 | 8 | 207.37176 | 1363.28023 | 1466.60792 | 1708.52850 |
| 10 | 3 | 7 | 207.40889 | 1363.31527 | 1466.63786 | 1708.57328 |
| 10 | 4 | 7 | 264.50627 | 1413.39753 | 1530.51790 | 1766.09253 |
| 10 | 4 | 6 | 264.50676 | 1413.38520 | 1530.51826 | 1766.09317 |
| 10 | 5 | 6 | 337.90971 | 1479.03413 | 1611.53124 | 1840.03690 |
| 10 | 5 | 5 | 337.90971 | 1479.03404 | 1611.53125 | 1840.03691 |
| 10 | 6 | 5 | 427.50576 | 1560.09819 | 1709.29287 | 1930.28595 |
| 10 | 6 | 4 | 427.50576 | 1560.09819 | 1709.29247 | 1930.28595 |
| 10 | 7 | 4 | 533.20441 | 1656.86769 | 1823.49328 | 2036.74067 |
| 10 | 7 | 3 | 533.20441 | 1656.86769 | 1823.49328 | 2036.74067 |
| 10 | 8 | 3 | 654.90655 | 1769.36195 | 1953.92149 | 2159.28832 |
| 10 | 8 | 2 | 654.90655 | 1769.36195 | 1953.92149 | 2159.28832 |
| 10 | 9 | 2 | 792.50186 | 1897.55842 | 2100.37710 | 2297.78332 |
| 10 | 9 | 1 | 792.50186 | 1897.55842 | 2100.37710 | 2297.78332 |
| 10 | 10 | 1 | 945.86859 | 2041.39390 | 2262.70691 | 2451.81772 |
| 10 | 10 | 0 | 945.86859 | 2041.39390 | 2262.70691 | 2451.81772 |
| 11 | 0 | 11 | 158.68854 | 1325.29963 | 1407.71157 | 1659.12532 |
| 11 | 1 | 11 | 162.81454 | 1328.65025 | 1412.88628 | 1663.09337 |
| 11 | 1 | 10 | 173.37040 | 1337.90290 | 1423.75503 | 1674.42767 |
| 11 | 2 | 10 | 192.79579 | 1354.20269 | 1446.73664 | 1693.67846 |
| 11 | 2 | 9 | 194.41751 | 1355.75402 | 1448.19976 | 1695.52458 |
| 11 | 3 | 9 | 234.13302 | 1389.90970 | 1493.28639 | 1735.37532 |
| 11 | 3 | 8 | 234.19782 | 1389.97074 | 1493.33861 | 1735.45066 |
| 11 | 4 | 8 | 291.24326 | 1439.99290 | 1557.17088 | 1792.93508 |
| 11 | 4 | 7 | 291.24432 | 1439.96856 | 1557.17165 | 1792.93645 |
| 11 | 5 | 7 | 364.62509 | 1505.66779 | 1638.14984 | 1866.86986 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 11 | 5 | 6 | 364.62510 | 1505.66757 | 1638.14985 | 1866.86987 |
| 11 | 6 | 6 | 454.20362 | 1586.70723 | 1735.89095 | 1957.12173 |
| 11 | 6 | 5 | 454.20362 | 1586.70723 | 1735.88754 | 1957.12173 |
| 11 | 7 | 5 | 559.88561 | 1683.46214 | 1850.03276 | 2063.59427 |
| 11 | 7 | 4 | 559.88561 | 1683.46214 | 1850.03276 | 2063.59427 |
| 11 | 8 | 4 | 681.57061 | 1795.94233 | 1980.40382 | 2186.18975 |
| 11 | 8 | 3 | 681.57061 | 1795.94233 | 1980.40382 | 2186.18975 |
| 11 | 9 | 3 | 819.14766 | 1924.12366 | 2126.77111 | 2324.82197 |
| 11 | 9 | 2 | 819.14766 | 1924.12366 | 2126.77111 | 2324.82197 |
| 11 | 10 | 2 | 972.49469 | 2067.94250 | 2288.92072 | 2479.61433 |
| 11 | 10 | 1 | 972.49469 | 2067.94250 | 2288.92072 | 2479.61433 |
| 11 | 11 | 1 | 1141.47892 | 2227.30167 | 2466.43063 | 2648.53695 |
| 11 | 11 | 0 | 1141.47892 | 2227.30167 | 2466.43063 | 2648.53695 |
| | | | | | | |
| 12 | 0 | 12 | 187.21332 | 1353.73217 | 1436.25108 | 1687.65763 |
| 12 | 1 | 12 | 190.84312 | 1356.66353 | 1440.87633 | 1691.12017 |
| 12 | 1 | 11 | 203.28459 | 1367.56406 | 1453.68926 | 1704.47341 |
| 12 | 2 | 11 | 221.82499 | 1383.08284 | 1475.78474 | 1722.78547 |
| 12 | 2 | 10 | 224.05898 | 1385.21803 | 1477.79570 | 1725.32304 |
| 12 | 3 | 10 | 263.33209 | 1418.96106 | 1522.39105 | 1764.63008 |
| 12 | 3 | 9 | 263.43968 | 1419.06216 | 1522.47773 | 1764.71877 |
| 12 | 4 | 9 | 320.41535 | 1469.00713 | 1586.24975 | 1822.22281 |
| 12 | 4 | 8 | 320.41747 | 1468.96288 | 1586.25129 | 1822.22553 |
| 12 | 5 | 8 | 393.77108 | 1534.72907 | 1667.18953 | 1896.14416 |
| 12 | 5 | 7 | 393.77110 | 1534.72852 | 1667.18956 | 1896.14419 |
| 12 | 6 | 7 | 483.32906 | 1615.73706 | 1764.98055 | 1986.39728 |
| 12 | 6 | 6 | 483.32906 | 1615.73706 | 1764.93861 | 1986.39728 |
| 12 | 7 | 6 | 588.99204 | 1712.47459 | 1878.98484 | 2092.88770 |
| 12 | 7 | 5 | 588.99204 | 1712.47459 | 1878.98484 | 2092.88770 |
| 12 | 8 | 5 | 710.65781 | 1824.93865 | 2009.29361 | 2215.53328 |
| 12 | 8 | 4 | 710.65781 | 1824.93865 | 2009.29361 | 2215.53328 |
| 12 | 9 | 4 | 848.21459 | 1953.10297 | 2155.56580 | 2354.30663 |
| 12 | 9 | 3 | 848.21459 | 1953.10297 | 2155.56580 | 2354.30663 |
| 12 | 10 | 3 | 1001.53987 | 2096.90342 | 2317.52677 | 2509.72740 |
| 12 | 10 | 2 | 1001.53987 | 2096.90342 | 2317.52677 | 2509.72740 |
| 12 | 11 | 2 | 1170.50063 | 2256.24215 | 2494.35741 | 2676.40247 |
| 12 | 11 | 1 | 1170.50063 | 2256.24215 | 2494.35741 | 2676.40247 |
| 12 | 12 | 1 | 1354.95398 | 2430.99366 | 2691.15044 | 2863.18627 |
| 12 | 12 | 0 | 1354.95398 | 2430.99366 | 2691.15044 | 2863.18627 |
| | | | | | | |
| 13 | 0 | 13 | 218.02090 | 1384.44825 | 1467.07970 | 1718.46435 |
| 13 | 1 | 13 | 221.18103 | 1386.98557 | 1471.17998 | 1721.45328 |
| 13 | 1 | 12 | 235.64696 | 1399.65209 | 1486.08111 | 1736.97128 |
| 13 | 2 | 12 | 253.24928 | 1414.34215 | 1507.24419 | 1754.29089 |
| 13 | 2 | 11 | 256.23685 | 1417.19496 | 1509.92686 | 1757.67610 |
| 13 | 3 | 11 | 294.96911 | 1450.43350 | 1553.92115 | 1796.55806 |
| 13 | 3 | 10 | 295.14044 | 1450.59392 | 1554.05905 | 1796.72621 |
| 13 | 4 | 10 | 352.02360 | 1500.44178 | 1617.75520 | 1853.95684 |
| 13 | 4 | 9 | 352.02759 | 1500.36673 | 1617.75811 | 1853.96198 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 13 | 5 | 9 | 425.34818 | 1566.21981 | 1698.65062 | 1927.86031 |
| 13 | 5 | 8 | 425.34823 | 1566.21855 | 1698.65067 | 1927.86038 |
| 13 | 6 | 8 | 514.88222 | 1647.18815 | 1796.22007 | 2018.11263 |
| 13 | 6 | 7 | 514.88222 | 1647.18815 | 1796.18047 | 2018.11263 |
| 13 | 7 | 7 | 620.52362 | 1743.90510 | 1910.34952 | 2124.62054 |
| 13 | 7 | 6 | 620.52362 | 1743.90510 | 1910.34952 | 2124.62054 |
| 13 | 8 | 6 | 742.16793 | 1856.35076 | 2040.59086 | 2247.31807 |
| 13 | 8 | 5 | 742.16793 | 1856.35076 | 2040.59086 | 2247.31807 |
| 13 | 9 | 5 | 879.70231 | 1984.49607 | 2186.76142 | 2386.23500 |
| 13 | 9 | 4 | 879.70231 | 1984.49607 | 2186.76142 | 2386.23500 |
| 13 | 10 | 4 | 1033.00373 | 2128.27640 | 2348.52657 | 2542.19424 |
| 13 | 10 | 3 | 1033.00373 | 2128.27640 | 2348.52657 | 2542.19424 |
| 13 | 11 | 3 | 1201.93885 | 2287.59259 | 2524.76311 | 2706.75651 |
| 13 | 11 | 2 | 1201.93885 | 2287.59259 | 2524.76311 | 2706.75651 |
| 13 | 12 | 2 | 1386.36461 | 2462.31992 | 2723.60911 | 2894.10144 |
| 13 | 12 | 1 | 1386.36461 | 2462.31992 | 2723.60911 | 2894.10144 |
| 13 | 13 | 1 | 1586.12914 | 2652.30496 | 2930.58398 | 3095.59012 |
| 13 | 13 | 0 | 1586.12914 | 2652.30496 | 2930.58398 | 3095.59012 |
| 14 | 0 | 14 | 251.09912 | 1417.43734 | 1500.18464 | 1751.53331 |
| 14 | 1 | 14 | 253.82337 | 1419.61169 | 1503.79462 | 1754.08738 |
| 14 | 1 | 13 | 270.44513 | 1434.15437 | 1520.92015 | 1771.90700 |
| 14 | 2 | 13 | 287.06305 | 1447.97417 | 1541.11308 | 1788.18845 |
| 14 | 2 | 12 | 290.95637 | 1451.68835 | 1544.59986 | 1792.58814 |
| 14 | 3 | 12 | 329.04378 | 1484.32571 | 1587.87547 | 1830.72907 |
| 14 | 3 | 11 | 329.30703 | 1484.57094 | 1588.08703 | 1831.02333 |
| 14 | 4 | 11 | 386.06912 | 1534.29852 | 1651.68792 | 1888.13835 |
| 14 | 4 | 10 | 386.07629 | 1534.17847 | 1651.69315 | 1888.14756 |
| 14 | 5 | 10 | 459.35692 | 1600.14215 | 1732.53342 | 1962.01885 |
| 14 | 5 | 9 | 459.35702 | 1600.13946 | 1732.53354 | 1962.01899 |
| 14 | 6 | 9 | 548.86323 | 1681.06100 | 1830.06733 | 2052.26782 |
| 14 | 6 | 8 | 548.86323 | 1681.06100 | 1830.04286 | 2052.26782 |
| 14 | 7 | 8 | 654.48025 | 1777.75376 | 1944.12680 | 2158.79230 |
| 14 | 7 | 7 | 654.48025 | 1777.75376 | 1944.12680 | 2158.79230 |
| 14 | 8 | 7 | 776.10070 | 1890.17852 | 2074.29554 | 2281.54321 |
| 14 | 8 | 6 | 776.10070 | 1890.17852 | 2074.29554 | 2281.54321 |
| 14 | 9 | 6 | 913.61047 | 2018.30270 | 2220.35820 | 2420.60485 |
| 14 | 9 | 5 | 913.61047 | 2018.30270 | 2220.35820 | 2420.60485 |
| 14 | 10 | 5 | 1066.88585 | 2162.06122 | 2381.92155 | 2577.03426 |
| 14 | 10 | 4 | 1066.88585 | 2162.06122 | 2381.92155 | 2577.03426 |
| 14 | 11 | 4 | 1235.79311 | 2321.35255 | 2557.62738 | 2739.57355 |
| 14 | 11 | 3 | 1235.79311 | 2321.35255 | 2557.62738 | 2739.57355 |
| 14 | 12 | 3 | 1420.18895 | 2496.05363 | 2758.43145 | 2927.40445 |
| 14 | 12 | 2 | 1420.18895 | 2496.05363 | 2758.43145 | 2927.40445 |
| 14 | 13 | 2 | 1619.92137 | 2686.01050 | 2964.85033 | 3129.03078 |
| 14 | 13 | 1 | 1619.92137 | 2686.01050 | 2964.85033 | 3129.03078 |
| 14 | 14 | 1 | 1834.83072 | 2891.04372 | 3188.08200 | 3345.56306 |
| 14 | 14 | 0 | 1834.83072 | 2891.04372 | 3188.08200 | 3345.56306 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 15 | 0 | 15 | 286.43829 | 1452.69117 | 1535.55532 | 1786.85520 |
| 15 | 1 | 15 | 288.76529 | 1454.53731 | 1538.71847 | 1789.01731 |
| 15 | 1 | 14 | 307.66530 | 1471.05667 | 1558.19463 | 1809.26470 |
| 15 | 2 | 14 | 323.26034 | 1483.97196 | 1577.38968 | 1824.47149 |
| 15 | 2 | 13 | 328.21975 | 1488.69881 | 1581.81871 | 1830.05995 |
| 15 | 3 | 13 | 365.55536 | 1520.63590 | 1624.25237 | 1867.37025 |
| 15 | 3 | 12 | 365.94740 | 1520.99853 | 1624.56677 | 1867.82191 |
| 15 | 4 | 12 | 422.55301 | 1570.57891 | 1688.04859 | 1924.76848 |
| 15 | 4 | 11 | 422.56535 | 1570.39623 | 1688.05761 | 1924.78431 |
| 15 | 5 | 11 | 495.79788 | 1636.49859 | 1768.83829 | 1998.62034 |
| 15 | 5 | 10 | 495.79808 | 1636.49315 | 1768.83853 | 1998.62062 |
| 15 | 6 | 10 | 585.27226 | 1717.35618 | 1866.31987 | 2088.86289 |
| 15 | 6 | 9 | 585.27225 | 1717.35616 | 1866.29770 | 2088.86289 |
| 15 | 7 | 9 | 690.86182 | 1814.02066 | 1980.31667 | 2195.40230 |
| 15 | 7 | 8 | 690.86182 | 1814.02066 | 1980.31666 | 2195.40230 |
| 15 | 8 | 8 | 812.45588 | 1926.42179 | 2110.40764 | 2318.20779 |
| 15 | 8 | 7 | 812.45588 | 1926.42179 | 2110.40764 | 2318.20779 |
| 15 | 9 | 7 | 949.93871 | 2054.52255 | 2256.35638 | 2457.41400 |
| 15 | 9 | 6 | 949.93871 | 2054.52255 | 2256.35638 | 2457.41400 |
| 15 | 10 | 6 | 1103.18578 | 2198.25775 | 2417.71299 | 2614.25874 |
| 15 | 10 | 5 | 1103.18578 | 2198.25775 | 2417.71299 | 2614.25874 |
| 15 | 11 | 5 | 1272.06290 | 2357.52159 | 2592.93791 | 2774.83870 |
| 15 | 11 | 4 | 1272.06290 | 2357.52159 | 2592.93791 | 2774.83870 |
| 15 | 12 | 4 | 1456.42648 | 2532.19427 | 2795.63122 | 2963.09641 |
| 15 | 12 | 3 | 1456.42648 | 2532.19427 | 2795.63122 | 2963.09641 |
| 15 | 13 | 3 | 1656.12432 | 2722.12078 | 3001.54786 | 3164.85999 |
| 15 | 13 | 2 | 1656.12432 | 2722.12078 | 3001.54786 | 3164.85999 |
| 15 | 14 | 2 | 1870.99667 | 2927.12177 | 3224.56074 | 3381.42855 |
| 15 | 14 | 1 | 1870.99667 | 2927.12177 | 3224.56074 | 3381.42855 |
| 15 | 15 | 1 | 2100.87743 | 3146.99081 | 3463.08018 | 3612.91108 |
| 15 | 15 | 0 | 2100.87743 | 3146.99081 | 3463.08018 | 3612.91108 |
| 16 | 0 | 16 | 324.03117 | 1490.20373 | 1573.18357 | 1824.42346 |
| 16 | 1 | 16 | 326.00209 | 1491.75801 | 1575.95115 | 1826.23808 |
| 16 | 1 | 15 | 347.29223 | 1510.34324 | 1597.89142 | 1849.02692 |
| 16 | 2 | 15 | 361.83488 | 1522.32821 | 1616.07255 | 1863.13306 |
| 16 | 2 | 14 | 368.02606 | 1528.22403 | 1621.58477 | 1870.08887 |
| 16 | 3 | 14 | 404.50258 | 1559.36169 | 1663.04972 | 1906.46291 |
| 16 | 3 | 13 | 405.07056 | 1559.88179 | 1663.50386 | 1907.12416 |
| 16 | 4 | 13 | 461.47634 | 1609.28424 | 1726.83788 | 1963.84829 |
| 16 | 4 | 12 | 461.49685 | 1609.01778 | 1726.85288 | 1963.87456 |
| 16 | 5 | 12 | 534.67167 | 1675.29212 | 1807.56557 | 2037.66539 |
| 16 | 5 | 11 | 534.67207 | 1675.28163 | 1807.56603 | 2037.66593 |
| 16 | 6 | 11 | 624.10945 | 1756.07427 | 1904.98594 | 2127.89787 |
| 16 | 6 | 10 | 624.10946 | 1756.07423 | 1904.96208 | 2127.89788 |
| 16 | 7 | 10 | 729.66822 | 1852.70588 | 2018.91913 | 2234.44964 |
| 16 | 7 | 9 | 729.66822 | 1852.70588 | 2018.91913 | 2234.44964 |
| 16 | 8 | 9 | 851.23317 | 1965.08040 | 2148.92713 | 2357.31083 |
| 16 | 8 | 8 | 851.23317 | 1965.08040 | 2148.92713 | 2357.31083 |
| 16 | 9 | 8 | 988.68662 | 2093.15528 | 2294.75619 | 2496.66033 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 16 | 9 | 7 | 988.68662 | 2093.15528 | 2294.75619 | 2496.66033 |
| 16 | 10 | 7 | 1141.90304 | 2236.86606 | 2455.90206 | 2653.87470 |
| 16 | 10 | 6 | 1141.90304 | 2236.86606 | 2455.90206 | 2653.87470 |
| 16 | 11 | 6 | 1310.74767 | 2396.09922 | 2630.68657 | 2812.54236 |
| 16 | 11 | 5 | 1310.74767 | 2396.09922 | 2630.68657 | 2812.54236 |
| 16 | 12 | 5 | 1495.07659 | 2570.74131 | 2835.21682 | 3001.17826 |
| 16 | 12 | 4 | 1495.07659 | 2570.74131 | 2835.21682 | 3001.17826 |
| 16 | 13 | 4 | 1694.73737 | 2760.63521 | 3040.67433 | 3203.07761 |
| 16 | 13 | 3 | 1694.73737 | 2760.63521 | 3040.67433 | 3203.07761 |
| 16 | 14 | 3 | 1909.57010 | 2965.60168 | 3263.46408 | 3419.68233 |
| 16 | 14 | 2 | 1909.57010 | 2965.60168 | 3263.46408 | 3419.68233 |
| 16 | 15 | 2 | 2139.40858 | 3185.43451 | 3501.85277 | 3651.15704 |
| 16 | 15 | 1 | 2139.40858 | 3185.43451 | 3501.85277 | 3651.15704 |
| 16 | 16 | 1 | 2384.08169 | 3419.89884 | 3755.39886 | 3897.43304 |
| 16 | 16 | 0 | 2384.08169 | 3419.89884 | 3755.39886 | 3897.43304 |
| 17 | 0 | 17 | 363.87272 | 1529.97093 | 1613.06366 | 1864.23388 |
| 17 | 1 | 17 | 365.52925 | 1531.26956 | 1615.49471 | 1865.74496 |
| 17 | 1 | 16 | 389.30929 | 1551.99677 | 1639.99606 | 1891.17477 |
| 17 | 2 | 16 | 402.78008 | 1563.03516 | 1657.16077 | 1904.16590 |
| 17 | 2 | 15 | 410.37145 | 1570.25894 | 1663.89672 | 1912.66910 |
| 17 | 3 | 15 | 445.88361 | 1600.50010 | 1704.26491 | 1948.00104 |
| 17 | 3 | 14 | 446.68644 | 1601.22462 | 1704.90430 | 1948.93941 |
| 17 | 4 | 14 | 502.84016 | 1650.41546 | 1768.05637 | 2005.37880 |
| 17 | 4 | 13 | 502.87315 | 1650.04045 | 1768.08055 | 2005.42099 |
| 17 | 5 | 13 | 575.97895 | 1716.52636 | 1848.71562 | 2079.15463 |
| 17 | 5 | 12 | 575.97967 | 1716.50693 | 1848.71647 | 2079.15560 |
| 17 | 6 | 12 | 665.37499 | 1797.21592 | 1946.06761 | 2169.37281 |
| 17 | 6 | 11 | 665.37500 | 1797.21584 | 1946.03980 | 2169.37282 |
| 17 | 7 | 11 | 770.89934 | 1893.80952 | 2059.93422 | 2275.93277 |
| 17 | 7 | 10 | 770.89934 | 1893.80953 | 2059.93421 | 2275.93277 |
| 17 | 8 | 10 | 892.43226 | 2006.15416 | 2189.85399 | 2398.85131 |
| 17 | 8 | 9 | 892.43226 | 2006.15416 | 2189.85399 | 2398.85131 |
| 17 | 9 | 9 | 1029.85376 | 2134.20054 | 2335.55781 | 2538.34179 |
| 17 | 9 | 8 | 1029.85376 | 2134.20054 | 2335.55781 | 2538.34179 |
| 17 | 10 | 8 | 1183.03710 | 2277.88681 | 2496.48978 | 2695.88669 |
| 17 | 10 | 7 | 1183.03710 | 2277.88681 | 2496.48978 | 2695.88669 |
| 17 | 11 | 7 | 1351.84684 | 2437.08493 | 2670.86764 | 2852.67786 |
| 17 | 11 | 6 | 1351.84684 | 2437.08493 | 2670.86764 | 2852.67786 |
| 17 | 12 | 6 | 1536.13865 | 2611.69417 | 2877.19360 | 3041.65080 |
| 17 | 12 | 5 | 1536.13865 | 2611.69417 | 2877.19360 | 3041.65080 |
| 17 | 13 | 5 | 1735.75985 | 2801.55319 | 3082.22753 | 3243.68347 |
| 17 | 13 | 4 | 1735.75985 | 2801.55319 | 3082.22753 | 3243.68347 |
| 17 | 14 | 4 | 1950.55033 | 3006.48280 | 3304.79073 | 3460.32387 |
| 17 | 14 | 3 | 1950.55033 | 3006.48280 | 3304.79073 | 3460.32387 |
| 17 | 15 | 3 | 2180.34376 | 3226.27704 | 3543.04291 | 3691.78919 |
| 17 | 15 | 2 | 2180.34376 | 3226.27704 | 3543.04291 | 3691.78919 |
| 17 | 16 | 2 | 2424.96894 | 3460.70142 | 3796.48902 | 3938.02986 |
| 17 | 16 | 1 | 2424.96894 | 3460.70142 | 3796.48902 | 3938.02986 |
| 17 | 17 | 1 | 2684.25127 | 3709.49075 | 4064.92223 | 4198.92223 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 17 | 17 | 0 | 2684.25127 | 3709.49075 | 4064.92223 | 4198.92223 |
| 18 | 0 | 18 | 405.95983 | 1571.99028 | 1655.19212 | 1906.28421 |
| 18 | 1 | 18 | 407.34245 | 1573.06792 | 1657.35598 | 1907.53346 |
| 18 | 1 | 17 | 433.69863 | 1595.99858 | 1684.49279 | 1935.68814 |
| 18 | 2 | 17 | 446.08914 | 1606.08466 | 1700.65423 | 1947.56253 |
| 18 | 2 | 16 | 455.24939 | 1614.79606 | 1708.75076 | 1957.79203 |
| 18 | 3 | 16 | 489.69600 | 1644.04750 | 1747.89491 | 1991.98057 |
| 18 | 3 | 15 | 490.80579 | 1645.02720 | 1748.77412 | 1993.27897 |
| 18 | 4 | 15 | 546.64539 | 1693.97311 | 1811.70459 | 2049.36082 |
| 18 | 4 | 14 | 546.69701 | 1693.46097 | 1811.74246 | 2049.42670 |
| 18 | 5 | 14 | 619.72039 | 1760.20585 | 1892.28877 | 2123.08869 |
| 18 | 5 | 13 | 619.72167 | 1760.17108 | 1892.29032 | 2123.09041 |
| 18 | 6 | 13 | 709.06904 | 1840.78184 | 1989.56576 | 2213.28773 |
| 18 | 6 | 12 | 709.06906 | 1840.78167 | 1989.53202 | 2213.28776 |
| 18 | 7 | 12 | 814.55503 | 1937.33167 | 2103.36193 | 2319.84850 |
| 18 | 7 | 11 | 814.55503 | 1937.33170 | 2103.36193 | 2319.84850 |
| 18 | 8 | 11 | 936.05282 | 2049.64288 | 2233.18818 | 2442.82820 |
| 18 | 8 | 10 | 936.05282 | 2049.64288 | 2233.18818 | 2442.82820 |
| 18 | 9 | 10 | 1073.43967 | 2177.65796 | 2378.76144 | 2582.45640 |
| 18 | 9 | 9 | 1073.43967 | 2177.65796 | 2378.76144 | 2582.45640 |
| 18 | 10 | 9 | 1226.58740 | 2321.32224 | 2539.47706 | 2740.29772 |
| 18 | 10 | 8 | 1226.58740 | 2321.32224 | 2539.47706 | 2740.29772 |
| 18 | 11 | 8 | 1395.35979 | 2480.47818 | 2713.47686 | 2895.24030 |
| 18 | 11 | 7 | 1395.35979 | 2480.47818 | 2713.47686 | 2895.24030 |
| 18 | 12 | 7 | 1579.61200 | 2655.05223 | 2921.56509 | 3084.51469 |
| 18 | 12 | 6 | 1579.61200 | 2655.05223 | 2921.56509 | 3084.51469 |
| 18 | 13 | 6 | 1779.19105 | 2844.87404 | 3126.20535 | 3286.67736 |
| 18 | 13 | 5 | 1779.19105 | 2844.87404 | 3126.20535 | 3286.67736 |
| 18 | 14 | 5 | 1993.93662 | 3049.76444 | 3348.53936 | 3503.35255 |
| 18 | 14 | 4 | 1993.93662 | 3049.76444 | 3348.53936 | 3503.35255 |
| 18 | 15 | 4 | 2223.68222 | 3269.51769 | 3586.64958 | 3734.80675 |
| 18 | 15 | 3 | 2223.68222 | 3269.51769 | 3586.64958 | 3734.80675 |
| 18 | 16 | 3 | 2468.25653 | 3503.89968 | 3839.99068 | 3981.00940 |
| 18 | 16 | 2 | 2468.25653 | 3503.89968 | 3839.99068 | 3981.00940 |
| 18 | 17 | 2 | 2727.48488 | 3752.64579 | 4108.33573 | 4241.84489 |
| 18 | 17 | 1 | 2727.48488 | 3752.64579 | 4108.33573 | 4241.84489 |
| 18 | 18 | 1 | 3001.19086 | 4391.57188 | 4015.45844 | 4517.16804 |
| 18 | 18 | 0 | 3001.19086 | 4391.57188 | 4015.45844 | 4517.16804 |
| 19 | 0 | 19 | 450.29082 | 1616.26049 | 1699.56750 | 1950.57363 |
| 19 | 1 | 19 | 451.43762 | 1617.14932 | 1701.55208 | 1951.59940 |
| 19 | 1 | 18 | 480.44143 | 1642.32891 | 1731.36470 | 1982.54613 |
| 19 | 2 | 18 | 491.75504 | 1651.46819 | 1746.55387 | 1993.31532 |
| 19 | 2 | 17 | 502.65110 | 1661.82578 | 1756.14079 | 2005.44675 |
| 19 | 3 | 17 | 535.93673 | 1689.99962 | 1793.93630 | 2038.39753 |
| 19 | 3 | 16 | 537.43987 | 1691.28029 | 1795.11897 | 2040.15485 |
| 19 | 4 | 16 | 592.89285 | 1739.95731 | 1857.78292 | 2095.79502 |
| 19 | 4 | 15 | 592.97157 | 1739.27525 | 1857.84078 | 2095.89528 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 19 | 5 | 15 | 665.89670 | 1806.33627 | 1938.28528 | 2169.46825 |
| 19 | 5 | 14 | 665.89888 | 1806.27600 | 1938.28807 | 2169.47117 |
| 19 | 6 | 14 | 755.19181 | 1886.77279 | 2035.48089 | 2259.64268 |
| 19 | 6 | 13 | 755.19185 | 1886.77246 | 2035.43917 | 2259.64273 |
| 19 | 7 | 13 | 860.63516 | 1983.27244 | 2149.20232 | 2366.18762 |
| 19 | 7 | 12 | 860.63516 | 1983.27250 | 2149.20231 | 2366.18762 |
| 19 | 8 | 12 | 982.09452 | 2095.54635 | 2278.92966 | 2489.24042 |
| 19 | 8 | 11 | 982.09452 | 2095.54635 | 2278.92966 | 2489.24042 |
| 19 | 9 | 11 | 1119.44387 | 2223.52712 | 2424.36723 | 2629.00224 |
| 19 | 9 | 10 | 1119.44387 | 2223.52712 | 2424.36723 | 2629.00224 |
| 19 | 10 | 10 | 1272.55337 | 2367.18056 | 2584.86466 | 2787.10977 |
| 19 | 10 | 9 | 1272.55337 | 2367.18056 | 2584.86466 | 2787.10977 |
| 19 | 11 | 9 | 1441.28585 | 2526.27837 | 2758.51091 | 2940.22592 |
| 19 | 11 | 8 | 1441.28585 | 2526.27837 | 2758.51091 | 2940.22592 |
| 19 | 12 | 8 | 1625.49592 | 2700.81484 | 2968.33362 | 3129.77044 |
| 19 | 12 | 7 | 1625.49592 | 2700.81484 | 2968.33362 | 3129.77044 |
| 19 | 13 | 7 | 1825.03021 | 2890.59707 | 3172.60572 | 3332.05902 |
| 19 | 13 | 6 | 1825.03021 | 2890.59707 | 3172.60572 | 3332.05902 |
| 19 | 14 | 6 | 2039.72817 | 3095.44586 | 3394.70858 | 3548.76775 |
| 19 | 14 | 5 | 2039.72817 | 3095.44586 | 3394.70858 | 3548.76775 |
| 19 | 15 | 5 | 2269.42314 | 3315.15570 | 3632.67171 | 3780.20892 |
| 19 | 15 | 4 | 2269.42314 | 3315.15570 | 3632.67171 | 3780.20892 |
| 19 | 16 | 4 | 2513.94366 | 3549.49286 | 3885.90290 | 4026.37073 |
| 19 | 16 | 3 | 2513.94366 | 3549.49286 | 3885.90290 | 4026.37073 |
| 19 | 17 | 3 | 2773.11494 | 3798.19329 | 4154.15527 | 4287.14574 |
| 19 | 17 | 2 | 2773.11494 | 3798.19329 | 4154.15527 | 4287.14574 |
| 19 | 18 | 2 | 3046.76050 | 4437.30654 | 4060.96017 | 4562.39254 |
| 19 | 18 | 1 | 3046.76050 | 4437.30654 | 4060.96017 | 4562.39254 |
| 19 | 19 | 1 | 3334.70386 | 4735.30500 | 4337.46185 | 4851.95773 |
| 19 | 19 | 0 | 3334.70386 | 4735.30500 | 4337.46185 | 4851.95773 |
| 20 | 0 | 20 | 496.86505 | 1662.78106 | 1746.18998 | 1997.10243 |
| 20 | 1 | 20 | 497.81093 | 1663.51022 | 1748.12570 | 1997.93892 |
| 20 | 1 | 19 | 529.51831 | 1690.96726 | 1780.59396 | 2031.72756 |
| 20 | 2 | 19 | 539.77060 | 1699.17684 | 1794.86207 | 2041.41651 |
| 20 | 2 | 18 | 552.56585 | 1711.33664 | 1806.05871 | 2055.62042 |
| 20 | 3 | 18 | 584.60212 | 1738.35152 | 1842.38537 | 2087.24753 |
| 20 | 3 | 17 | 586.60007 | 1739.94952 | 1843.94340 | 2089.57899 |
| 20 | 4 | 17 | 641.58313 | 1788.36776 | 1906.29160 | 2144.68177 |
| 20 | 4 | 16 | 641.70051 | 1787.47822 | 1906.37799 | 2144.83091 |
| 20 | 5 | 16 | 714.50861 | 1854.92500 | 1986.70531 | 2218.29394 |
| 20 | 5 | 15 | 714.51223 | 1854.82340 | 1986.71025 | 2218.29878 |
| 20 | 6 | 15 | 803.74348 | 1935.18959 | 2083.81334 | 2308.43769 |
| 20 | 6 | 14 | 803.74355 | 1935.18898 | 2083.76137 | 2308.43779 |
| 20 | 7 | 14 | 909.13958 | 2031.63193 | 2197.45542 | 2414.90897 |
| 20 | 7 | 13 | 909.13959 | 2031.63204 | 2197.45540 | 2414.90897 |
| 20 | 8 | 13 | 1030.55697 | 2143.86435 | 2327.07838 | 2538.08687 |
| 20 | 8 | 12 | 1030.55697 | 2143.86436 | 2327.07838 | 2538.08687 |
| 20 | 9 | 12 | 1167.86584 | 2271.80759 | 2472.37532 | 2677.97746 |
| 20 | 9 | 11 | 1167.86584 | 2271.80759 | 2472.37532 | 2677.97746 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 20 | 10 | 11 | 1320.93439 | 2415.50187 | 2632.65320 | 2836.32414 |
| 20 | 10 | 10 | 1320.93439 | 2415.50187 | 2632.65320 | 2836.32414 |
| 20 | 11 | 10 | 1489.62434 | 2574.48492 | 2805.96710 | 2987.63165 |
| 20 | 11 | 9 | 1489.62434 | 2574.48492 | 2805.96710 | 2987.63165 |
| 20 | 12 | 9 | 1673.78966 | 2748.98131 | 3017.50068 | 3177.41841 |
| 20 | 12 | 8 | 1673.78966 | 2748.98131 | 3017.50068 | 3177.41841 |
| 20 | 13 | 8 | 1873.27656 | 2938.72155 | 3221.42662 | 3379.82813 |
| 20 | 13 | 7 | 1873.27656 | 2938.72155 | 3221.42662 | 3379.82813 |
| 20 | 14 | 7 | 2087.92418 | 3143.52630 | 3443.29697 | 3596.56880 |
| 20 | 14 | 6 | 2087.92418 | 3143.52630 | 3443.29697 | 3596.56880 |
| 20 | 15 | 6 | 2317.56568 | 3363.19027 | 3681.10817 | 3827.99483 |
| 20 | 15 | 5 | 2317.56568 | 3363.19027 | 3681.10817 | 3827.99483 |
| 20 | 16 | 5 | 2562.02944 | 3597.48015 | 3934.22467 | 4074.11290 |
| 20 | 16 | 4 | 2562.02944 | 3597.48015 | 3934.22467 | 4074.11290 |
| 20 | 17 | 4 | 2821.14056 | 3846.13244 | 4202.37992 | 4334.82372 |
| 20 | 17 | 3 | 2821.14056 | 3846.13244 | 4202.37992 | 4334.82372 |
| 20 | 18 | 3 | 3094.72245 | 4485.44205 | 4108.85113 | 4609.98978 |
| 20 | 18 | 2 | 3094.72245 | 4485.44205 | 4108.85113 | 4609.98978 |
| 20 | 19 | 2 | 3382.59856 | 4783.35396 | 4385.30553 | 4899.45950 |
| 20 | 19 | 1 | 3382.59856 | 4783.35396 | 4385.30553 | 4899.45950 |
| 20 | 20 | 1 | 3684.59422 | 5096.11653 | 4675.12893 | 5203.07827 |
| 20 | 20 | 0 | 3684.59422 | 5096.11653 | 4675.12893 | 5203.07827 |
| 21 | 0 | 21 | 545.68256 | 1711.55199 | 1795.06107 | 2045.87181 |
| 21 | 1 | 21 | 546.45881 | 1712.14731 | 1797.19185 | 2046.54843 |
| 21 | 1 | 20 | 580.90983 | 1741.89291 | 1832.16219 | 2083.21157 |
| 21 | 2 | 20 | 590.12854 | 1749.20135 | 1845.58301 | 2091.85830 |
| 21 | 2 | 19 | 604.98127 | 1763.31557 | 1858.49463 | 2108.29851 |
| 21 | 3 | 19 | 635.68790 | 1789.09760 | 1893.23826 | 2138.52570 |
| 21 | 3 | 18 | 638.29739 | 1790.92818 | 1895.24988 | 2141.56257 |
| 21 | 4 | 18 | 692.71664 | 1839.20375 | 1957.23064 | 2196.02113 |
| 21 | 4 | 17 | 692.88804 | 1838.06355 | 1957.35699 | 2196.23838 |
| 21 | 5 | 17 | 765.55685 | 1905.98166 | 2037.54863 | 2269.56645 |
| 21 | 5 | 16 | 765.56270 | 1905.81471 | 2037.55748 | 2269.57426 |
| 21 | 6 | 16 | 854.72427 | 1986.03315 | 2134.56343 | 2359.67280 |
| 21 | 6 | 15 | 854.72439 | 1986.03206 | 2134.49860 | 2359.67297 |
| 21 | 7 | 15 | 960.06814 | 2082.41023 | 2248.12130 | 2466.45096 |
| 21 | 7 | 14 | 960.06814 | 2082.41043 | 2248.12127 | 2466.45096 |
| 21 | 8 | 14 | 1081.43980 | 2194.59665 | 2377.63429 | 2589.36640 |
| 21 | 8 | 13 | 1081.43980 | 2194.59665 | 2377.63429 | 2589.36640 |
| 21 | 9 | 13 | 1218.70503 | 2322.49892 | 2522.78581 | 2729.38026 |
| 21 | 9 | 12 | 1218.70503 | 2322.49892 | 2522.78581 | 2729.38026 |
| 21 | 10 | 12 | 1371.72979 | 2465.84664 | 2682.84322 | 2887.94161 |
| 21 | 10 | 11 | 1371.72979 | 2465.84664 | 2682.84322 | 2887.94161 |
| 21 | 11 | 11 | 1540.37452 | 2625.09717 | 2855.84317 | 3037.45495 |
| 21 | 11 | 10 | 1540.37452 | 2625.09717 | 2855.84317 | 3037.45495 |
| 21 | 12 | 10 | 1724.49243 | 2799.55093 | 3069.06719 | 3227.45883 |
| 21 | 12 | 9 | 1724.49243 | 2799.55093 | 3069.06719 | 3227.45883 |
| 21 | 13 | 9 | 1923.92924 | 2989.24668 | 3272.66609 | 3429.98434 |
| 21 | 13 | 8 | 1923.92924 | 2989.24668 | 3272.66609 | 3429.98434 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 21 | 14 | 8 | 2138.52377 | 3194.00494 | 3494.30306 | 3646.75496 |
| 21 | 14 | 7 | 2138.52377 | 3194.00494 | 3494.30306 | 3646.75496 |
| 21 | 15 | 7 | 2368.10894 | 3413.62057 | 3731.95778 | 3878.16359 |
| 21 | 15 | 6 | 2368.10894 | 3413.62057 | 3731.95778 | 3878.16359 |
| 21 | 16 | 6 | 2612.51297 | 3647.86067 | 3984.95494 | 4124.23488 |
| 21 | 16 | 5 | 2612.51297 | 3647.86067 | 3984.95494 | 4124.23488 |
| 21 | 17 | 5 | 2871.56081 | 3896.46237 | 4253.00867 | 4384.87776 |
| 21 | 17 | 4 | 2871.56081 | 3896.46237 | 4253.00867 | 4384.87776 |
| 21 | 18 | 4 | 3145.07577 | 4535.97743 | 4159.13045 | 4659.95861 |
| 21 | 18 | 3 | 3145.07577 | 4535.97743 | 4159.13045 | 4659.95861 |
| 21 | 19 | 3 | 3432.88122 | 4833.79859 | 4435.53525 | 4949.32774 |
| 21 | 19 | 2 | 3432.88122 | 4833.79859 | 4435.53525 | 4949.32774 |
| 21 | 20 | 2 | 3734.80239 | 5146.46935 | 4725.31127 | 5252.83136 |
| 21 | 20 | 1 | 3734.80239 | 5146.46935 | 4725.31127 | 5252.83136 |
| 21 | 21 | 1 | 4050.66840 | 5474.04130 | 5028.05708 | 5570.31837 |
| 21 | 21 | 0 | 4050.66840 | 5474.04130 | 5028.05708 | 5570.31837 |
| 22 | 0 | 22 | 596.74375 | 1762.57355 | 1846.18334 | 2096.88436 |
| 22 | 1 | 22 | 597.37793 | 1763.05753 | 1843.91668 | 2097.42465 |
| 22 | 1 | 21 | 634.59703 | 1795.08549 | 1886.05088 | 2136.97837 |
| 22 | 2 | 21 | 642.82153 | 1801.53210 | 1898.72302 | 2144.63291 |
| 22 | 2 | 20 | 659.88354 | 1817.74799 | 1913.43712 | 2163.46510 |
| 22 | 3 | 20 | 689.18919 | 1842.23160 | 1946.49107 | 2192.22662 |
| 22 | 3 | 19 | 692.54188 | 1849.05782 | 1949.03764 | 2196.11526 |
| 22 | 4 | 19 | 746.29347 | 1892.46417 | 2010.59984 | 2249.81280 |
| 22 | 4 | 18 | 746.53906 | 1891.02353 | 2010.78115 | 2250.12326 |
| 22 | 5 | 18 | 819.04215 | 1959.51885 | 2090.81384 | 2323.28639 |
| 22 | 5 | 17 | 819.05142 | 1959.25093 | 2090.83040 | 2323.29871 |
| 22 | 6 | 17 | 908.13439 | 2039.30447 | 2187.73140 | 2413.34803 |
| 22 | 6 | 16 | 908.13461 | 2039.30256 | 2187.65072 | 2413.34833 |
| 22 | 7 | 16 | 1013.42067 | 2135.60746 | 2301.20005 | 2520.04489 |
| 22 | 7 | 15 | 1013.42067 | 2135.60780 | 2301.19999 | 2520.04490 |
| 22 | 8 | 15 | 1134.74258 | 2247.74298 | 2430.59733 | 2643.07786 |
| 22 | 8 | 14 | 1134.74258 | 2247.74299 | 2430.59733 | 2643.07786 |
| 22 | 9 | 14 | 1271.96087 | 2375.60061 | 2575.59876 | 2783.20889 |
| 22 | 9 | 13 | 1271.96087 | 2375.60061 | 2575.59876 | 2783.20889 |
| 22 | 10 | 13 | 1424.93889 | 2518.98241 | 2735.43508 | 2941.96259 |
| 22 | 10 | 12 | 1424.93889 | 2518.98241 | 2735.43508 | 2941.96259 |
| 22 | 11 | 12 | 1593.53562 | 2678.11448 | 2908.13715 | 3089.69363 |
| 22 | 11 | 11 | 1593.53562 | 2678.11448 | 2908.13715 | 3089.69363 |
| 22 | 12 | 11 | 1777.60340 | 2852.52292 | 3123.03365 | 3279.89180 |
| 22 | 12 | 10 | 1777.60340 | 2852.52292 | 3123.03365 | 3279.89180 |
| 22 | 13 | 10 | 1976.98738 | 3042.17165 | 3326.32219 | 3482.52722 |
| 22 | 13 | 9 | 1976.98738 | 3042.17165 | 3326.32219 | 3482.52722 |
| 22 | 14 | 9 | 2191.52603 | 3246.88091 | 3547.72535 | 3699.32548 |
| 22 | 14 | 8 | 2191.52603 | 3246.88091 | 3547.72535 | 3699.32548 |
| 22 | 15 | 8 | 2421.05199 | 3466.44570 | 3785.21931 | 3930.71424 |
| 22 | 15 | 7 | 2421.05199 | 3466.44570 | 3785.21931 | 3930.71424 |
| 22 | 16 | 7 | 2665.39328 | 3700.63354 | 4038.09261 | 4176.73562 |
| 22 | 16 | 6 | 2665.39328 | 3700.63354 | 4038.09261 | 4176.73562 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 22 | 17 | 6 | 2924.37471 | 3949.18216 | 4306.04048 | 4437.30671 |
| 22 | 17 | 5 | 2924.37471 | 3949.18216 | 4306.04048 | 4437.30671 |
| 22 | 18 | 5 | 3197.81948 | 4588.91167 | 4211.79721 | 4712.29783 |
| 22 | 18 | 4 | 3197.81948 | 4588.91167 | 4211.79721 | 4712.29783 |
| 22 | 19 | 4 | 3485.55083 | 4886.63789 | 4488.15008 | 5001.56119 |
| 22 | 19 | 3 | 3485.55083 | 4886.63789 | 4488.15008 | 5001.56119 |
| 22 | 20 | 3 | 3787.39394 | 5199.21255 | 4777.87655 | 5304.94382 |
| 22 | 20 | 2 | 3787.39394 | 5199.21255 | 4777.87655 | 5304.94382 |
| 22 | 21 | 2 | 4103.17783 | 5526.68433 | 5080.57668 | 5622.29489 |
| 22 | 21 | 1 | 4103.17783 | 5526.68433 | 5080.57668 | 5622.29489 |
| 22 | 22 | 1 | 4432.73746 | 5869.15493 | 5395.81652 | 5953.47056 |
| 22 | 22 | 0 | 4432.73746 | 5869.15493 | 5395.81652 | 5953.47056 |
| 23 | 0 | 23 | 650.04919 | 1815.84604 | 1899.56015 | 2150.14809 |
| 23 | 1 | 23 | 650.56521 | 1816.23802 | 1898.46054 | 2150.56457 |
| 23 | 1 | 22 | 690.56206 | 1850.52553 | 1942.24199 | 2193.00987 |
| 23 | 2 | 22 | 697.84224 | 1856.15912 | 1954.29080 | 2199.73268 |
| 23 | 2 | 21 | 717.25758 | 1874.61789 | 1970.87335 | 2221.10291 |
| 23 | 3 | 21 | 745.10053 | 1897.74662 | 2002.13998 | 2248.34437 |
| 23 | 3 | 20 | 749.34196 | 1904.18455 | 2005.30122 | 2253.24449 |
| 23 | 4 | 20 | 802.31338 | 1948.14748 | 2066.39867 | 2306.05603 |
| 23 | 4 | 19 | 802.65917 | 1946.34893 | 2066.65435 | 2306.49188 |
| 23 | 5 | 19 | 874.96527 | 2015.55304 | 2146.49423 | 2379.45436 |
| 23 | 5 | 18 | 874.97962 | 2015.13254 | 2146.52974 | 2379.47339 |
| 23 | 6 | 18 | 963.97408 | 2095.00468 | 2243.31750 | 2469.46342 |
| 23 | 6 | 17 | 963.97444 | 2095.00140 | 2243.21754 | 2469.46392 |
| 23 | 7 | 17 | 1069.19699 | 2191.22369 | 2356.69176 | 2576.12854 |
| 23 | 7 | 16 | 1069.19700 | 2191.22426 | 2356.69165 | 2576.12854 |
| 23 | 8 | 16 | 1190.46489 | 2303.30309 | 2485.96743 | 2699.22007 |
| 23 | 8 | 15 | 1190.46489 | 2303.30310 | 2485.96743 | 2699.22007 |
| 23 | 9 | 15 | 1327.63277 | 2431.11215 | 2630.81423 | 2839.46165 |
| 23 | 9 | 14 | 1327.63277 | 2431.11216 | 2630.81423 | 2839.46165 |
| 23 | 10 | 14 | 1480.56097 | 2574.47021 | 2790.42908 | 2998.38718 |
| 23 | 10 | 13 | 1480.56097 | 2574.47021 | 2790.42908 | 2998.38718 |
| 23 | 11 | 13 | 1649.10683 | 2733.53613 | 2962.84729 | 3144.34573 |
| 23 | 11 | 12 | 1649.10683 | 2733.53613 | 2962.84729 | 3144.34573 |
| 23 | 12 | 12 | 1833.12169 | 2907.89649 | 3179.40023 | 3334.71730 |
| 23 | 12 | 11 | 1833.12169 | 2907.89649 | 3179.40023 | 3334.71730 |
| 23 | 13 | 11 | 2032.45006 | 3097.49561 | 3382.39304 | 3537.45632 |
| 23 | 13 | 10 | 2032.45006 | 3097.49561 | 3382.39304 | 3537.45632 |
| 23 | 14 | 10 | 2246.93000 | 3302.15331 | 3603.56231 | 3754.27955 |
| 23 | 14 | 9 | 2246.93000 | 3302.15331 | 3603.56231 | 3754.27955 |
| 23 | 15 | 9 | 2476.39383 | 3521.66473 | 3840.89149 | 3985.64579 |
| 23 | 15 | 8 | 2476.39383 | 3521.66473 | 3840.89149 | 3985.64579 |
| 23 | 16 | 8 | 2720.66937 | 3755.79779 | 4093.63652 | 4231.61400 |
| 23 | 16 | 7 | 2720.66937 | 3755.79779 | 4093.63652 | 4231.61400 |
| 23 | 17 | 7 | 2979.58125 | 4004.29087 | 4361.47426 | 4492.10938 |
| 23 | 17 | 6 | 2979.58125 | 4004.29087 | 4361.47426 | 4492.10938 |
| 23 | 18 | 6 | 3252.95253 | 4644.24370 | 4266.85045 | 4767.00619 |
| 23 | 18 | 5 | 3252.95253 | 4644.24370 | 4266.85045 | 4767.00619 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 23 | 19 | 5 | 3540.60636 | 4941.87081 | 4543.14907 | 5056.15854 |
| 23 | 19 | 4 | 3540.60636 | 4941.87081 | 4543.14907 | 5056.15854 |
| 23 | 20 | 4 | 3842.36780 | 5254.34510 | 4832.82382 | 5359.41430 |
| 23 | 20 | 3 | 3842.36780 | 5254.34510 | 4832.82382 | 5359.41430 |
| 23 | 21 | 3 | 4158.06582 | 5581.71221 | 5135.47632 | 5676.62287 |
| 23 | 21 | 2 | 4158.06582 | 5581.71221 | 5135.47632 | 5676.62287 |
| 23 | 22 | 2 | 4487.53530 | 5924.07127 | 5450.67434 | 6007.64026 |
| 23 | 22 | 1 | 4487.53530 | 5924.07127 | 5450.67434 | 6007.64026 |
| 23 | 23 | 1 | 4830.61920 | 6281.57284 | 5777.95589 | 6352.33335 |
| 23 | 23 | 0 | 4830.61920 | 6281.57284 | 5777.95589 | 6352.33335 |
| 24 | 0 | 24 | 705.59944 | 1871.36974 | 1955.19550 | 2205.73812 |
| 24 | 1 | 24 | 706.01779 | 1871.68615 | 1954.59786 | 2205.96544 |
| 24 | 1 | 23 | 748.78878 | 1908.19495 | 2000.71847 | 2251.29030 |
| 24 | 2 | 23 | 755.18340 | 1913.07208 | 2004.02913 | 2257.15011 |
| 24 | 2 | 22 | 777.08712 | 1933.90786 | 2030.78918 | 2281.19348 |
| 24 | 3 | 22 | 803.41591 | 1955.63513 | 2060.18142 | 2306.87255 |
| 24 | 3 | 21 | 808.70384 | 1962.53868 | 2064.02919 | 2312.95487 |
| 24 | 4 | 21 | 860.77575 | 2006.25169 | 2124.62631 | 2364.74954 |
| 24 | 4 | 20 | 861.25478 | 2012.29746 | 2124.98102 | 2365.35146 |
| 24 | 5 | 20 | 933.32689 | 2074.10523 | 2204.51584 | 2438.07091 |
| 24 | 5 | 19 | 933.34868 | 2073.45945 | 2204.65633 | 2438.09971 |
| 24 | 6 | 19 | 1022.24356 | 2153.13503 | 2301.32193 | 2528.01898 |
| 24 | 6 | 18 | 1022.24416 | 2153.12955 | 2301.19876 | 2528.01981 |
| 24 | 7 | 18 | 1127.39692 | 2249.25900 | 2414.59659 | 2634.66095 |
| 24 | 7 | 17 | 1127.39693 | 2249.25996 | 2414.59638 | 2634.66097 |
| 24 | 8 | 17 | 1248.60628 | 2361.27669 | 2543.74452 | 2757.79180 |
| 24 | 8 | 16 | 1248.60628 | 2361.27671 | 2543.74452 | 2757.79180 |
| 24 | 9 | 16 | 1385.72007 | 2489.03302 | 2688.43221 | 2898.13688 |
| 24 | 9 | 15 | 1385.72007 | 2489.03302 | 2688.43221 | 2898.13688 |
| 24 | 10 | 15 | 1538.59527 | 2632.34970 | 2847.82539 | 3057.21528 |
| 24 | 10 | 14 | 1538.59527 | 2632.34970 | 2847.82539 | 3057.21528 |
| 24 | 11 | 14 | 1707.08731 | 2791.36142 | 3019.97202 | 3201.40946 |
| 24 | 11 | 13 | 1707.08731 | 2791.36142 | 3019.97202 | 3201.40946 |
| 24 | 12 | 13 | 1891.04638 | 2965.67081 | 3238.16682 | 3391.93518 |
| 24 | 12 | 12 | 1891.04638 | 2965.67081 | 3238.16682 | 3391.93518 |
| 24 | 13 | 12 | 2090.31632 | 3155.21766 | 3440.87680 | 3594.77110 |
| 24 | 13 | 11 | 2090.31632 | 3155.21766 | 3440.87680 | 3594.77110 |
| 24 | 14 | 11 | 2304.73467 | 3359.82121 | 3661.81235 | 3811.61630 |
| 24 | 14 | 10 | 2304.73467 | 3359.82121 | 3661.81235 | 3811.61630 |
| 24 | 15 | 10 | 2534.13344 | 3579.27671 | 3898.97299 | 4042.95719 |
| 24 | 15 | 9 | 2534.13344 | 3579.27671 | 3898.97299 | 4042.95719 |
| 24 | 16 | 9 | 2778.34018 | 3813.35245 | 4151.58546 | 4288.86886 |
| 24 | 16 | 8 | 2778.34018 | 3813.35245 | 4151.58546 | 4288.86886 |
| 24 | 17 | 8 | 3037.17936 | 4061.78747 | 4419.30884 | 4549.28452 |
| 24 | 17 | 7 | 3037.17936 | 4061.78747 | 4419.30884 | 4549.28452 |
| 24 | 18 | 7 | 3310.47386 | 4701.97241 | 4324.28917 | 4824.08236 |
| 24 | 18 | 6 | 3310.47386 | 4701.97241 | 4324.28917 | 4824.08236 |
| 24 | 19 | 6 | 3598.04671 | 4999.49627 | 4600.53121 | 5113.11841 |
| 24 | 19 | 5 | 3598.04671 | 4999.49627 | 4600.53121 | 5113.11841 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 24 | 20 | 5 | 3899.72289 | 5311.86591 | 4890.15209 | 5416.24138 |
| 24 | 20 | 4 | 3899.72289 | 5311.86591 | 4890.15209 | 5416.24138 |
| 24 | 21 | 4 | 4215.33127 | 5639.12385 | 5192.75502 | 5733.30085 |
| 24 | 21 | 3 | 4215.33127 | 5639.12385 | 5192.75502 | 5733.30085 |
| 24 | 22 | 3 | 4544.70665 | 5981.36658 | 5507.90959 | 6064.15268 |
| 24 | 22 | 2 | 4544.70665 | 5981.36658 | 5507.90959 | 6064.15268 |
| 24 | 23 | 2 | 4887.69196 | 6338.74222 | 5835.15575 | 6408.66333 |
| 24 | 23 | 1 | 4887.69196 | 6338.74222 | 5835.15575 | 6408.66333 |
| 24 | 24 | 1 | 5244.14047 | 6711.44729 | 6174.01028 | 6766.71361 |
| 24 | 24 | 0 | 5244.14047 | 6711.44729 | 6174.01028 | 6766.71361 |
| 25 | 0 | 25 | 763.39496 | 1929.14479 | 2013.09395 | 2263.24248 |
| 25 | 1 | 25 | 763.73302 | 1929.39944 | 2012.69068 | 2263.62474 |
| 25 | 1 | 24 | 809.26321 | 1968.07742 | 2061.46489 | 2311.80659 |
| 25 | 2 | 24 | 814.83786 | 1972.26026 | 2064.05254 | 2316.87794 |
| 25 | 2 | 23 | 839.35473 | 1995.59906 | 2093.16929 | 2343.71714 |
| 25 | 3 | 23 | 864.12883 | 2015.88902 | 2120.61212 | 2367.80435 |
| 25 | 3 | 22 | 870.63106 | 2023.76076 | 2125.20348 | 2375.24773 |
| 25 | 4 | 22 | 921.67950 | 2066.77435 | 2185.28154 | 2425.89154 |
| 25 | 4 | 21 | 922.33312 | 2072.75629 | 2185.76620 | 2426.71006 |
| 25 | 5 | 21 | 994.12769 | 2135.20097 | 2265.29161 | 2499.13648 |
| 25 | 5 | 20 | 994.16018 | 2134.23096 | 2265.21110 | 2499.17930 |
| 25 | 6 | 20 | 1082.94307 | 2213.69695 | 2361.74490 | 2589.01473 |
| 25 | 6 | 19 | 1082.94406 | 2213.68799 | 2361.59401 | 2589.01608 |
| 25 | 7 | 19 | 1188.02026 | 2309.71341 | 2474.91470 | 2695.63280 |
| 25 | 7 | 18 | 1188.02028 | 2309.71504 | 2474.91433 | 2695.63283 |
| 25 | 8 | 18 | 1309.16627 | 2421.66350 | 2603.92851 | 2818.79182 |
| 25 | 8 | 17 | 1309.16627 | 2421.66352 | 2603.92850 | 2818.79182 |
| 25 | 9 | 17 | 1446.22214 | 2549.36264 | 2748.45268 | 2959.23294 |
| 25 | 9 | 16 | 1446.22214 | 2549.36264 | 2748.45268 | 2959.23294 |
| 25 | 10 | 16 | 1599.04100 | 2692.62890 | 2907.62406 | 3118.44659 |
| 25 | 10 | 15 | 1599.04100 | 2692.62890 | 2907.62406 | 3118.44659 |
| 25 | 11 | 15 | 1767.47616 | 2851.58961 | 3079.50982 | 3260.88317 |
| 25 | 11 | 14 | 1767.47616 | 2851.58961 | 3079.50982 | 3260.88317 |
| 25 | 12 | 14 | 1951.37654 | 3025.84501 | 3299.33314 | 3451.54518 |
| 25 | 12 | 13 | 1951.37654 | 3025.84501 | 3299.33314 | 3451.54518 |
| 25 | 13 | 13 | 2150.58515 | 3215.33684 | 3501.77161 | 3654.47098 |
| 25 | 13 | 12 | 2150.58515 | 3215.33684 | 3501.77161 | 3654.47098 |
| 25 | 14 | 12 | 2364.93900 | 3419.88362 | 3722.47387 | 3871.33484 |
| 25 | 14 | 11 | 2364.93900 | 3419.88362 | 3722.47387 | 3871.33484 |
| 25 | 15 | 11 | 2594.26973 | 3639.28059 | 3959.46242 | 4102.64734 |
| 25 | 15 | 10 | 2594.26973 | 3639.28059 | 3959.46242 | 4102.64734 |
| 25 | 16 | 10 | 2838.40462 | 3873.29647 | 4211.93817 | 4348.49899 |
| 25 | 16 | 9 | 2838.40462 | 3873.29647 | 4211.93817 | 4348.49899 |
| 25 | 17 | 9 | 3097.16791 | 4121.67093 | 4479.54305 | 4608.83083 |
| 25 | 17 | 8 | 3097.16791 | 4121.67093 | 4479.54305 | 4608.83083 |
| 25 | 18 | 8 | 3370.38232 | 4762.09664 | 4384.11232 | 4883.52499 |
| 25 | 18 | 7 | 3370.38232 | 4762.09664 | 4384.11232 | 4883.52499 |
| 25 | 19 | 7 | 3657.87075 | 5059.51312 | 4660.29546 | 5172.43939 |
| 25 | 19 | 6 | 3657.87075 | 5059.51312 | 4660.29546 | 5172.43939 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 25 | 20 | 6 | 3959.45806 | 5371.77385 | 4949.86031 | 5475.42357 |
| 25 | 20 | 5 | 3959.45806 | 5371.77385 | 4949.86031 | 5475.42357 |
| 25 | 21 | 5 | 4274.97302 | 5698.91815 | 5252.41176 | 5792.32729 |
| 25 | 21 | 4 | 4274.97302 | 5698.91815 | 5252.41176 | 5792.32729 |
| 25 | 22 | 4 | 4604.25037 | 6041.03972 | 5567.52127 | 6123.00625 |
| 25 | 22 | 3 | 4604.25037 | 6041.03972 | 5567.52127 | 6123.00625 |
| 25 | 23 | 3 | 4947.13296 | 6398.28421 | 5894.73080 | 6467.32640 |
| 25 | 23 | 2 | 4947.13296 | 6398.28421 | 5894.73080 | 6467.32640 |
| 25 | 24 | 2 | 5303.47404 | 6770.84585 | 6233.55923 | 6825.16792 |
| 25 | 24 | 1 | 5303.47404 | 6770.84585 | 6233.55923 | 6825.16792 |
| 25 | 25 | 1 | 5673.13953 | 7158.96264 | 6583.51111 | 7196.42892 |
| 25 | 25 | 0 | 5673.13953 | 7158.96264 | 6583.51111 | 7196.42892 |
| 26 | 0 | 26 | 823.43606 | 1989.17117 | 2073.26055 | 2323.26260 |
| 26 | 1 | 26 | 823.70842 | 1989.37559 | 2072.93371 | 2323.54016 |
| 26 | 1 | 25 | 871.97381 | 2030.15850 | 2124.46794 | 2374.54853 |
| 26 | 2 | 25 | 876.79861 | 2033.71258 | 2126.40721 | 2378.90932 |
| 26 | 2 | 24 | 904.04187 | 2059.67119 | 2157.99717 | 2408.65311 |
| 26 | 3 | 24 | 927.23231 | 2078.49962 | 2183.42918 | 2431.13264 |
| 26 | 3 | 23 | 935.12407 | 2087.65630 | 2188.80031 | 2440.12092 |
| 26 | 4 | 23 | 985.02307 | 2129.71247 | 2248.36274 | 2489.47960 |
| 26 | 4 | 22 | 985.90230 | 2135.68214 | 2249.01551 | 2490.57662 |
| 26 | 5 | 22 | 1057.36825 | 2198.86897 | 2328.22082 | 2562.65143 |
| 26 | 5 | 21 | 1057.41591 | 2197.44577 | 2328.19510 | 2562.71403 |
| 26 | 6 | 21 | 1146.07287 | 2276.69212 | 2424.58655 | 2652.45067 |
| 26 | 6 | 20 | 1146.07444 | 2276.67773 | 2424.40283 | 2652.45282 |
| 26 | 7 | 20 | 1251.06682 | 2372.58685 | 2537.64632 | 2759.04071 |
| 26 | 7 | 19 | 1251.06686 | 2372.58963 | 2537.64567 | 2759.04075 |
| 26 | 8 | 19 | 1372.14437 | 2484.46320 | 2666.51931 | 2882.21885 |
| 26 | 8 | 18 | 1372.14437 | 2484.46325 | 2666.51930 | 2882.21885 |
| 26 | 9 | 18 | 1509.13827 | 2612.10041 | 2810.87558 | 3022.74824 |
| 26 | 9 | 17 | 1509.13827 | 2612.10041 | 2810.87558 | 3022.74824 |
| 26 | 10 | 17 | 1661.89733 | 2755.30980 | 2969.82509 | 3182.08065 |
| 26 | 10 | 16 | 1661.89733 | 2755.30980 | 2969.82509 | 3182.08065 |
| 26 | 11 | 16 | 1830.27247 | 2914.21991 | 3141.45930 | 3322.76529 |
| 26 | 11 | 15 | 1830.27247 | 2914.21991 | 3141.45930 | 3322.76529 |
| 26 | 12 | 15 | 2014.11115 | 3088.41818 | 3362.89871 | 3513.54693 |
| 26 | 12 | 14 | 2014.11115 | 3088.41818 | 3362.89871 | 3513.54693 |
| 26 | 13 | 14 | 2213.25549 | 3277.85220 | 3565.07568 | 3716.55531 |
| 26 | 13 | 13 | 2213.25549 | 3277.85220 | 3565.07568 | 3716.55531 |
| 26 | 14 | 13 | 2427.54191 | 3482.33950 | 3785.54522 | 3933.43422 |
| 26 | 14 | 12 | 2427.54191 | 3482.33950 | 3785.54522 | 3933.43422 |
| 26 | 15 | 12 | 2656.80160 | 3701.67533 | 4022.35837 | 4164.71511 |
| 26 | 15 | 11 | 2656.80160 | 3701.67533 | 4022.35837 | 4164.71511 |
| 26 | 16 | 11 | 2900.86154 | 3935.62876 | 4274.69334 | 4410.50311 |
| 26 | 16 | 10 | 2900.86154 | 3935.62876 | 4274.69334 | 4410.50311 |
| 26 | 17 | 10 | 3159.54574 | 4183.94015 | 4542.17563 | 4670.74695 |
| 26 | 17 | 9 | 3159.54574 | 4183.94015 | 4542.17563 | 4670.74695 |
| 26 | 18 | 9 | 3432.67675 | 4824.61517 | 4446.31878 | 4945.33264 |
| 26 | 18 | 8 | 3432.67675 | 4824.61517 | 4446.31878 | 4945.33264 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 26 | 19 | 8 | 3720.07729 | 5121.92016 | 4722.44072 | 5234.11999 |
| 26 | 19 | 7 | 3720.07729 | 5121.92016 | 4722.44072 | 5234.11999 |
| 26 | 20 | 7 | 4021.57212 | 5434.06776 | 5011.94741 | 5536.95933 |
| 26 | 20 | 6 | 4021.57212 | 5434.06776 | 5011.94741 | 5536.95933 |
| 26 | 21 | 6 | 4336.98988 | 5761.09395 | 5314.44548 | 5853.70061 |
| 26 | 21 | 5 | 4336.98988 | 5761.09395 | 5314.44548 | 5853.70061 |
| 26 | 22 | 5 | 4666.16524 | 6103.08956 | 5629.50833 | 6184.19930 |
| 26 | 22 | 4 | 4666.16524 | 6103.08956 | 5629.50833 | 6184.19930 |
| 26 | 23 | 4 | 5008.94100 | 6460.19766 | 5956.68002 | 6528.32087 |
| 26 | 23 | 3 | 5008.94100 | 6460.19766 | 5956.68002 | 6528.32087 |
| 26 | 24 | 3 | 5365.17033 | 6832.61013 | 6295.48162 | 6885.94479 |
| 26 | 24 | 2 | 5365.17033 | 6832.61013 | 6295.48162 | 6885.94479 |
| 26 | 25 | 2 | 5734.71917 | 7220.56284 | 6645.41984 | 7256.96828 |
| 26 | 25 | 1 | 5734.71917 | 7220.56284 | 6645.41984 | 7256.96828 |
| 26 | 26 | 1 | 6117.46859 | 7624.32962 | 7005.99745 | 7641.31013 |
| 26 | 26 | 0 | 6117.46859 | 7624.32962 | 7005.99745 | 7641.31013 |
| 27 | 0 | 27 | 885.72284 | 2051.44870 | 2135.70083 | 2385.49007 |
| 27 | 1 | 27 | 885.94168 | 2051.61240 | 2135.40333 | 2385.70958 |
| 27 | 1 | 26 | 936.91163 | 2094.42558 | 2189.71682 | 2439.50875 |
| 27 | 2 | 26 | 941.05886 | 2097.41754 | 2191.08170 | 2443.23792 |
| 27 | 2 | 25 | 971.12896 | 2126.10261 | 2225.25515 | 2475.97960 |
| 27 | 3 | 25 | 992.71897 | 2143.45773 | 2248.63014 | 2496.85002 |
| 27 | 3 | 24 | 1002.18016 | 2154.14677 | 2254.79326 | 2507.56884 |
| 27 | 4 | 24 | 1050.80436 | 2195.06254 | 2313.86788 | 2555.51066 |
| 27 | 4 | 23 | 1051.97124 | 2201.09066 | 2314.73516 | 2556.96078 |
| 27 | 5 | 23 | 1123.04910 | 2265.13746 | 2393.61231 | 2628.61597 |
| 27 | 5 | 22 | 1123.11792 | 2263.10207 | 2393.60953 | 2628.70605 |
| 27 | 6 | 22 | 1211.63320 | 2342.12248 | 2489.84702 | 2718.32679 |
| 27 | 6 | 21 | 1211.63566 | 2342.09979 | 2489.62460 | 2718.33014 |
| 27 | 7 | 21 | 1316.53638 | 2437.87905 | 2602.79175 | 2824.88292 |
| 27 | 7 | 20 | 1316.53644 | 2437.88390 | 2602.79061 | 2824.88300 |
| 27 | 8 | 20 | 1437.54006 | 2549.67547 | 2731.51683 | 2948.07159 |
| 27 | 8 | 19 | 1437.54006 | 2549.67556 | 2731.51682 | 2948.07159 |
| 27 | 9 | 19 | 1574.46775 | 2677.24573 | 2875.70079 | 3088.68119 |
| 27 | 9 | 18 | 1574.46775 | 2677.24573 | 2875.70079 | 3088.68119 |
| 27 | 10 | 18 | 1727.16341 | 2820.39273 | 3034.42835 | 3248.11687 |
| 27 | 10 | 17 | 1727.16341 | 2820.39274 | 3034.42835 | 3248.11687 |
| 27 | 11 | 17 | 1895.47527 | 2979.25155 | 3205.81910 | 3387.05429 |
| 27 | 11 | 16 | 1895.47527 | 2979.25155 | 3205.81910 | 3387.05429 |
| 27 | 12 | 16 | 2079.24918 | 3153.38938 | 3428.86291 | 3577.93997 |
| 27 | 12 | 15 | 2079.24918 | 3153.38938 | 3428.86291 | 3577.93997 |
| 27 | 13 | 15 | 2278.32626 | 3342.76269 | 3630.78720 | 3781.02339 |
| 27 | 13 | 14 | 2278.32626 | 3342.76269 | 3630.78720 | 3781.02339 |
| 27 | 14 | 14 | 2492.54224 | 3547.18778 | 3851.02472 | 3997.91344 |
| 27 | 14 | 13 | 2492.54224 | 3547.18778 | 3851.02472 | 3997.91344 |
| 27 | 15 | 13 | 2721.72785 | 3766.45982 | 4087.65935 | 4229.15932 |
| 27 | 15 | 12 | 2721.72785 | 3766.45982 | 4087.65935 | 4229.15932 |
| 27 | 16 | 12 | 2965.70974 | 4000.34820 | 4339.84961 | 4474.87993 |
| 27 | 16 | 11 | 2965.70974 | 4000.34820 | 4339.84961 | 4474.87993 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 27 | 17 | 11 | 3224.31164 | 4248.59399 | 4607.20527 | 4735.03149 |
| 27 | 17 | 10 | 3224.31164 | 4248.59399 | 4607.20527 | 4735.03149 |
| 27 | 18 | 10 | 3497.35591 | 4889.52675 | 4510.90743 | 5009.50384 |
| 27 | 18 | 9 | 3497.35591 | 4889.52675 | 4510.90743 | 5009.50384 |
| 27 | 19 | 9 | 3784.66510 | 5186.71616 | 4786.96585 | 5298.15866 |
| 27 | 19 | 8 | 3784.66510 | 5186.71616 | 4786.96585 | 5298.15866 |
| 27 | 20 | 8 | 4086.06382 | 5498.74640 | 5076.41225 | 5600.84706 |
| 27 | 20 | 7 | 4086.06382 | 5498.74640 | 5076.41225 | 5600.84706 |
| 27 | 21 | 7 | 4401.38061 | 5825.65001 | 5378.85504 | 5917.41915 |
| 27 | 21 | 6 | 4401.38061 | 5825.65001 | 5378.85504 | 5917.41915 |
| 27 | 22 | 6 | 4730.45003 | 6167.51489 | 5693.86966 | 6247.73014 |
| 27 | 22 | 5 | 4730.45003 | 6167.51489 | 5693.86966 | 6247.73014 |
| 27 | 23 | 5 | 5073.11481 | 6524.48139 | 6021.00235 | 6591.64498 |
| 27 | 23 | 4 | 5073.11481 | 6524.48139 | 6021.00235 | 6591.64498 |
| 27 | 24 | 4 | 5429.22808 | 6896.73893 | 6359.77640 | 6949.04240 |
| 27 | 24 | 3 | 5429.22808 | 6896.73893 | 6359.77640 | 6949.04240 |
| 27 | 25 | 3 | 5798.65575 | 7284.52121 | 6709.70080 | 7319.81870 |
| 27 | 25 | 2 | 5798.65575 | 7284.52121 | 6709.70080 | 7319.81870 |
| 27 | 26 | 2 | 6181.27891 | 7688.10016 | 7070.28053 | 7703.89159 |
| 27 | 26 | 1 | 6181.27891 | 7688.10016 | 7070.28053 | 7703.89159 |
| 27 | 27 | 1 | 6576.99635 | 8107.77945 | 7441.02763 | 8101.20401 |
| 27 | 27 | 0 | 6576.99635 | 8107.77945 | 7441.02763 | 8101.20401 |
| 28 | 0 | 28 | 950.25522 | 2115.97700 | 2200.42081 | 2449.95341 |
| 28 | 1 | 28 | 950.43062 | 2116.10782 | 2200.13334 | 2450.13105 |
| 28 | 1 | 27 | 1004.07017 | 2160.86766 | 2257.20346 | 2506.68243 |
| 28 | 2 | 27 | 1007.61208 | 2163.36323 | 2258.06584 | 2509.85841 |
| 28 | 2 | 26 | 1040.59546 | 2194.87033 | 2294.92448 | 2545.67398 |
| 28 | 3 | 26 | 1060.58107 | 2210.75366 | 2316.21289 | 2564.94898 |
| 28 | 3 | 25 | 1071.79348 | 2223.19396 | 2323.15834 | 2577.58261 |
| 28 | 4 | 25 | 1119.02072 | 2262.82045 | 2381.79447 | 2623.98095 |
| 28 | 4 | 24 | 1120.54961 | 2268.99742 | 2382.93180 | 2625.87277 |
| 28 | 5 | 24 | 1191.17061 | 2334.02900 | 2461.43770 | 2697.03011 |
| 28 | 5 | 23 | 1191.26857 | 2331.19766 | 2461.45581 | 2697.15788 |
| 28 | 6 | 23 | 1279.62431 | 2409.99035 | 2557.52642 | 2786.64307 |
| 28 | 6 | 22 | 1279.62809 | 2409.95519 | 2557.25859 | 2786.64819 |
| 28 | 7 | 22 | 1384.42873 | 2505.58910 | 2670.35134 | 2893.15826 |
| 28 | 7 | 21 | 1384.42883 | 2505.59800 | 2670.34941 | 2893.15839 |
| 28 | 8 | 21 | 1505.35280 | 2617.30000 | 2798.92097 | 3016.34870 |
| 28 | 8 | 20 | 1505.35280 | 2617.30016 | 2798.92095 | 3016.34870 |
| 28 | 9 | 20 | 1642.20982 | 2744.79794 | 2942.92819 | 3157.03021 |
| 28 | 9 | 19 | 1642.20982 | 2744.79795 | 2942.92819 | 3157.03021 |
| 28 | 10 | 19 | 1794.83834 | 2887.87741 | 3101.43364 | 3316.55456 |
| 28 | 10 | 18 | 1794.83834 | 2887.87741 | 3101.43364 | 3316.55456 |
| 28 | 11 | 18 | 1963.08356 | 3046.68372 | 3272.58789 | 3453.74871 |
| 28 | 11 | 17 | 1963.08356 | 3046.68372 | 3272.58789 | 3453.74871 |
| 28 | 12 | 17 | 2146.78956 | 3220.75763 | 3497.22502 | 3644.72372 |
| 28 | 12 | 16 | 2146.78956 | 3220.75763 | 3497.22502 | 3644.72372 |
| 28 | 13 | 16 | 2345.79632 | 3410.06727 | 3698.90437 | 3847.87446 |
| 28 | 13 | 15 | 2345.79632 | 3410.06727 | 3698.90437 | 3847.87446 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 28 | 14 | 15 | 2559.93883 | 3614.42736 | 3918.91066 | 4064.77146 |
| 28 | 14 | 14 | 2559.93883 | 3614.42736 | 3918.91066 | 4064.77146 |
| 28 | 15 | 14 | 2789.04730 | 3833.63289 | 4155.36384 | 4295.97872 |
| 28 | 15 | 13 | 2789.04730 | 3833.63289 | 4155.36384 | 4295.97872 |
| 28 | 16 | 13 | 3032.94798 | 4067.45362 | 4407.40556 | 4541.62807 |
| 28 | 16 | 12 | 3032.94798 | 4067.45362 | 4407.40556 | 4541.62807 |
| 28 | 17 | 12 | 3291.46436 | 4315.63126 | 4674.63064 | 4801.68298 |
| 28 | 17 | 11 | 3291.46436 | 4315.63126 | 4674.63064 | 4801.68298 |
| 28 | 18 | 11 | 3564.41853 | 4956.83005 | 4577.87706 | 5076.03705 |
| 28 | 18 | 10 | 3564.41853 | 4956.83005 | 4577.87706 | 5076.03705 |
| 28 | 19 | 10 | 3851.63289 | 5253.89984 | 4853.86966 | 5364.55380 |
| 28 | 19 | 9 | 3851.63289 | 5253.89984 | 4853.86966 | 5364.55380 |
| 28 | 20 | 9 | 4152.93187 | 5565.80850 | 5143.25364 | 5667.08511 |
| 28 | 20 | 8 | 4152.93187 | 5565.80850 | 5143.25364 | 5667.08511 |
| 28 | 21 | 8 | 4468.14390 | 5892.58510 | 5445.63930 | 5983.48120 |
| 28 | 21 | 7 | 4468.14390 | 5892.58510 | 5445.63930 | 5983.48120 |
| 28 | 22 | 7 | 4797.10344 | 6234.31445 | 5760.60414 | 6313.59699 |
| 28 | 22 | 6 | 4797.10344 | 6234.31445 | 5760.60414 | 6313.59699 |
| 28 | 23 | 6 | 5139.65311 | 6591.13413 | 6087.69666 | 6657.29689 |
| 28 | 23 | 5 | 5139.65311 | 6591.13413 | 6087.69666 | 6657.29689 |
| 28 | 24 | 5 | 5495.64600 | 6963.23102 | 6426.44249 | 7014.45886 |
| 28 | 24 | 4 | 5495.64600 | 6963.23102 | 6426.44249 | 7014.45886 |
| 28 | 25 | 4 | 5864.94797 | 7350.83651 | 6776.35296 | 7384.97824 |
| 28 | 25 | 3 | 5864.94797 | 7350.83651 | 6776.35296 | 7384.97824 |
| 28 | 26 | 3 | 6247.44015 | 7754.22055 | 7136.93530 | 7768.77160 |
| 28 | 26 | 2 | 6247.44015 | 7754.22055 | 7136.93530 | 7768.77160 |
| 28 | 27 | 2 | 6643.02136 | 8173.68523 | 7507.70374 | 8165.78062 |
| 28 | 27 | 1 | 6643.02136 | 8173.68523 | 7507.70374 | 8165.78062 |
| 28 | 28 | 1 | 7051.61075 | 8609.55882 | 7888.19019 | 8575.97596 |
| 28 | 28 | 0 | 7051.61075 | 8609.55882 | 7888.19019 | 8575.97596 |
| 29 | 0 | 29 | 1017.03292 | 2182.75551 | 2267.42696 | 2516.65674 |
| 29 | 1 | 29 | 1017.17318 | 2182.85988 | 2267.14219 | 2516.80280 |
| 29 | 1 | 28 | 1073.44516 | 2229.47499 | 2326.92251 | 2576.06689 |
| 29 | 2 | 28 | 1076.45198 | 2231.53736 | 2327.35127 | 2578.76799 |
| 29 | 2 | 27 | 1112.42005 | 2265.95031 | 2366.98535 | 2617.71301 |
| 29 | 3 | 27 | 1130.81056 | 2280.37729 | 2386.17570 | 2635.42193 |
| 29 | 3 | 26 | 1143.95525 | 2294.77302 | 2393.87883 | 2650.15042 |
| 29 | 4 | 26 | 1189.66889 | 2332.98151 | 2452.13958 | 2694.88603 |
| 29 | 4 | 25 | 1191.64761 | 2339.41720 | 2453.61240 | 2697.32303 |
| 29 | 5 | 25 | 1261.73301 | 2405.55542 | 2531.69264 | 2767.89368 |
| 29 | 5 | 24 | 1261.87059 | 2401.73010 | 2531.73553 | 2768.07243 |
| 29 | 6 | 24 | 1350.04645 | 2480.29852 | 2627.62481 | 2857.39945 |
| 29 | 6 | 23 | 1350.05217 | 2480.24487 | 2627.30384 | 2857.40717 |
| 29 | 7 | 23 | 1454.74363 | 2575.71400 | 2740.32558 | 2963.86576 |
| 29 | 7 | 22 | 1454.74379 | 2575.73211 | 2740.32236 | 2963.86598 |
| 29 | 8 | 22 | 1575.58203 | 2687.33642 | 2868.73162 | 3087.04881 |
| 29 | 8 | 21 | 1575.58204 | 2687.33672 | 2868.73158 | 3087.04882 |
| 29 | 9 | 21 | 1712.36372 | 2814.75638 | 3012.55759 | 3227.79374 |
| 29 | 9 | 20 | 1712.36372 | 2814.75639 | 3012.55759 | 3227.79374 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 29 | 10 | 20 | 1864.92118 | 2957.76326 | 3170.84069 | 3387.39290 |
| 29 | 10 | 19 | 1864.92118 | 2957.76326 | 3170.84069 | 3387.39290 |
| 29 | 11 | 19 | 2033.09630 | 3116.51560 | 3341.76438 | 3522.84711 |
| 29 | 11 | 18 | 2033.09630 | 3116.51560 | 3341.76438 | 3522.84711 |
| 29 | 12 | 18 | 2216.73116 | 3290.52192 | 3567.98417 | 3713.89754 |
| 29 | 12 | 17 | 2216.73116 | 3290.52192 | 3567.98417 | 3713.89754 |
| 29 | 13 | 17 | 2415.66449 | 3479.76483 | 3769.42541 | 3917.10768 |
| 29 | 13 | 16 | 2415.66449 | 3479.76483 | 3769.42541 | 3917.10768 |
| 29 | 14 | 16 | 2629.73044 | 3684.05706 | 3989.20130 | 4134.00718 |
| 29 | 14 | 15 | 2629.73044 | 3684.05706 | 3989.20130 | 4134.00718 |
| 29 | 15 | 15 | 2858.75866 | 3903.19337 | 4225.47026 | 4365.17204 |
| 29 | 15 | 14 | 2858.75866 | 3903.19337 | 4225.47026 | 4365.17204 |
| 29 | 16 | 14 | 3102.57499 | 4136.94378 | 4477.35974 | 4610.74612 |
| 29 | 16 | 13 | 3102.57499 | 4136.94378 | 4477.35974 | 4610.74612 |
| 29 | 17 | 13 | 3361.00258 | 4385.05072 | 4744.45032 | 4870.69991 |
| 29 | 17 | 12 | 3361.00258 | 4385.05072 | 4744.45032 | 4870.69991 |
| 29 | 18 | 12 | 3633.86330 | 5026.52372 | 4647.22643 | 5144.93069 |
| 29 | 18 | 11 | 3633.86330 | 5026.52372 | 4647.22643 | 5144.93069 |
| 29 | 19 | 11 | 3920.97933 | 5323.46984 | 4923.15090 | 5433.30377 |
| 29 | 19 | 10 | 3920.97933 | 5323.46984 | 4923.15090 | 5433.30377 |
| 29 | 20 | 10 | 4222.17495 | 5635.25275 | 5212.47036 | 5735.67176 |
| 29 | 20 | 9 | 4222.17495 | 5635.25275 | 5212.47036 | 5735.67176 |
| 29 | 21 | 9 | 4537.27843 | 5961.89789 | 5514.79702 | 6051.88497 |
| 29 | 21 | 8 | 4537.27843 | 5961.89789 | 5514.79702 | 6051.88497 |
| 29 | 22 | 8 | 4866.12411 | 6303.48695 | 5829.71056 | 6381.79802 |
| 29 | 22 | 7 | 4866.12411 | 6303.48695 | 5829.71056 | 6381.79802 |
| 29 | 23 | 7 | 5208.55454 | 6660.15461 | 6156.76179 | 6725.27472 |
| 29 | 23 | 6 | 5208.55454 | 6660.15461 | 6156.76179 | 6725.27472 |
| 29 | 24 | 6 | 5564.42272 | 7032.08511 | 6495.47876 | 7082.19222 |
| 29 | 24 | 5 | 5564.42272 | 7032.08511 | 6495.47876 | 7082.19222 |
| 29 | 25 | 5 | 5933.59448 | 7419.50745 | 6845.37521 | 7452.44486 |
| 29 | 25 | 4 | 5933.59448 | 7419.50745 | 6845.37521 | 7452.44486 |
| 29 | 26 | 4 | 6315.95094 | 7822.68953 | 7205.96072 | 7835.94807 |
| 29 | 26 | 3 | 6315.95094 | 7822.68953 | 7205.96072 | 7835.94807 |
| 29 | 27 | 3 | 6711.39098 | 8241.93172 | 7576.75174 | 8232.64219 |
| 29 | 27 | 2 | 6711.39098 | 8241.93172 | 7576.75174 | 8232.64219 |
| 29 | 28 | 2 | 7119.83384 | 8677.56101 | 7957.28228 | 8642.49648 |
| 29 | 28 | 1 | 7119.83384 | 8677.56101 | 7957.28228 | 8642.49648 |
| 29 | 29 | 1 | 7541.22178 | 9129.92658 | 8347.11345 | 9065.51293 |
| 29 | 29 | 0 | 7541.22178 | 9129.92658 | 8347.11345 | 9065.51293 |
| 30 | 0 | 30 | 1086.05546 | 2251.78353 | 2336.72622 | 2585.60096 |
| 30 | 1 | 30 | 1086.16738 | 2251.86666 | 2336.44231 | 2585.72321 |
| 30 | 1 | 29 | 1145.03417 | 2300.23873 | 2398.87119 | 2647.66117 |
| 30 | 2 | 29 | 1147.57260 | 2301.92727 | 2398.93167 | 2649.97560 |
| 30 | 2 | 28 | 1186.58084 | 2339.31770 | 2441.41704 | 2692.07326 |
| 30 | 3 | 28 | 1203.39915 | 2352.31809 | 2458.51712 | 2708.26140 |
| 30 | 3 | 27 | 1218.65404 | 2368.86334 | 2479.71581 | 2725.25793 |
| 30 | 4 | 27 | 1262.74500 | 2405.54037 | 2524.89987 | 2768.22073 |
| 30 | 4 | 26 | 1265.27578 | 2412.36347 | 2526.78390 | 2771.32184 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 30 | 5 | 26 | 1334.73637 | 2466.94746 | 2604.37570 | 2841.20623 |
| 30 | 5 | 25 | 1334.92711 | 2474.69695 | 2604.45055 | 2841.45308 |
| 30 | 6 | 25 | 1422.89985 | 2553.05040 | 2700.14224 | 2930.59585 |
| 30 | 6 | 24 | 1422.90839 | 2552.96972 | 2699.75916 | 2930.60731 |
| 30 | 7 | 24 | 1527.48085 | 2648.23946 | 2812.71511 | 3037.00457 |
| 30 | 7 | 23 | 1527.48110 | 2648.28641 | 2812.70978 | 3037.00492 |
| 30 | 8 | 23 | 1648.22718 | 2759.78440 | 2940.94867 | 3160.17051 |
| 30 | 8 | 22 | 1648.22719 | 2759.78493 | 2940.94860 | 3160.17051 |
| 30 | 9 | 22 | 1784.92862 | 2887.12035 | 3084.58878 | 3300.97023 |
| 30 | 9 | 21 | 1784.92862 | 2887.12036 | 3084.58878 | 3300.97023 |
| 30 | 10 | 21 | 1937.41098 | 3030.04955 | 3242.64913 | 3460.63102 |
| 30 | 10 | 20 | 1937.41098 | 3030.04956 | 3242.64913 | 3460.63102 |
| 30 | 11 | 20 | 2105.51241 | 3188.74635 | 3413.34728 | 3594.34804 |
| 30 | 11 | 19 | 2105.51241 | 3188.74635 | 3413.34728 | 3594.34804 |
| 30 | 12 | 19 | 2289.07282 | 3362.68120 | 3641.13942 | 3785.46069 |
| 30 | 12 | 18 | 2289.07282 | 3362.68120 | 3641.13942 | 3785.46069 |
| 30 | 13 | 18 | 2487.92953 | 3551.85422 | 3842.34852 | 3988.72219 |
| 30 | 13 | 17 | 2487.92953 | 3551.85422 | 3842.34852 | 3988.72219 |
| 30 | 14 | 17 | 2701.91580 | 3756.07569 | 4061.89486 | 4205.61947 |
| 30 | 14 | 16 | 2701.91580 | 3756.07569 | 4061.89486 | 4205.61947 |
| 30 | 15 | 16 | 2930.86064 | 3975.13999 | 4297.97701 | 4436.73794 |
| 30 | 15 | 15 | 2930.86064 | 3975.13999 | 4297.97701 | 4436.73794 |
| 30 | 16 | 15 | 3174.58942 | 4208.81743 | 4549.71063 | 4682.23263 |
| 30 | 16 | 14 | 3174.58942 | 4208.81743 | 4549.71063 | 4682.23263 |
| 30 | 17 | 14 | 3432.92496 | 4456.85108 | 4816.66287 | 4942.08073 |
| 30 | 17 | 13 | 3432.92496 | 4456.85108 | 4816.66287 | 4942.08073 |
| 30 | 18 | 13 | 3705.68884 | 4718.95425 | 5098.60634 | 5216.18311 |
| 30 | 18 | 12 | 3705.68884 | 4718.95425 | 5098.60634 | 5216.18311 |
| 30 | 19 | 12 | 3992.70304 | 5395.42479 | 4994.80830 | 5504.40685 |
| 30 | 19 | 11 | 3992.70304 | 5395.42479 | 4994.80830 | 5504.40685 |
| 30 | 20 | 11 | 4293.79165 | 5707.07777 | 5284.06113 | 5806.60524 |
| 30 | 20 | 10 | 4293.79165 | 5707.07777 | 5284.06113 | 5806.60524 |
| 30 | 21 | 10 | 4608.78279 | 6033.58705 | 5586.32696 | 6122.62864 |
| 30 | 21 | 9 | 4608.78279 | 6033.58705 | 5586.32696 | 6122.62864 |
| 30 | 22 | 9 | 4937.51066 | 6375.03105 | 5901.18769 | 6452.33132 |
| 30 | 22 | 8 | 4937.51066 | 6375.03105 | 5901.18769 | 6452.33132 |
| 30 | 23 | 8 | 5279.81770 | 6731.54149 | 6228.19653 | 6795.57649 |
| 30 | 23 | 7 | 5279.81770 | 6731.54149 | 6228.19653 | 6795.57649 |
| 30 | 24 | 7 | 5635.55684 | 7103.29987 | 6566.88403 | 7152.24044 |
| 30 | 24 | 6 | 5635.55684 | 7103.29987 | 6566.88403 | 7152.24044 |
| 30 | 25 | 6 | 6004.59387 | 7490.53271 | 6916.76641 | 7522.21648 |
| 30 | 25 | 5 | 6004.59387 | 7490.53271 | 6916.76641 | 7522.21648 |
| 30 | 26 | 5 | 6386.80988 | 7893.50575 | 7277.35569 | 7905.41882 |
| 30 | 26 | 4 | 6386.80988 | 7893.50575 | 7277.35569 | 7905.41882 |
| 30 | 27 | 4 | 6782.10379 | 8312.51759 | 7648.17058 | 8301.78647 |
| 30 | 27 | 3 | 6782.10379 | 8312.51759 | 7648.17058 | 8301.78647 |
| 30 | 28 | 3 | 7190.39494 | 8747.89382 | 8028.74727 | 8711.28723 |
| 30 | 28 | 2 | 7190.39494 | 8747.89382 | 8028.74727 | 8711.28723 |
| 30 | 29 | 2 | 7611.62574 | 9199.98265 | 8418.64888 | 9133.92157 |
| 30 | 29 | 1 | 7611.62574 | 9199.98265 | 8418.64888 | 9133.92157 |
| 30 | 30 | 1 | 8045.76436 | 9669.15257 | 8817.47305 | 9569.72639 |

| J | Ka | Kc | GROUND STATE | v4 | v6 | v3 |
|----|----|----|--------------|------------|------------|------------|
| 30 | 30 | 0 | 8045.76436 | 9669.15257 | 8817.47305 | 9569.72639 |



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| 16. Abstract This document presents the results of a complete high resolution study of the three vibration-rotation bands ν_3 , ν_4 , and ν_6 using both TDLs and FT-IR spectroscopy. The results are given in terms of a table of over 8000 predicted transition frequencies and strengths. A plot of the predicted and calculated spectra is also shown. Over 3000 transitions were assigned and used in the simultaneous analysis of the three bands. The simultaneous fit permitted a rigorous study of Coriolis and other type interactions among the bands yielding improved molecular constants. Line intensities of 28 transitions measured by a TDL and 20 transitions from the FTS data were used, along with the eigenvectors from the frequency fitting, in a least squares analysis to evaluate the band strengths. | | | | |
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